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ABSTRACT

The research projects reported in this bulletin represent the scope of thinking being done by those in the music teaching field, by college students, and by students in Missouri's secondary schools. Articles in Volume 1, Number 1 are: "Toward the Development of a Music Curriculum Based on the Maturation of the Child" (A. Kitto); "Musical Values and the String Class" (J. Lang); "The Slow Learner in the High School General Music Class" (A. Olsen); "Music for the Academically Talented High School Student" (M. H. Wurtz); "Instrumental Music and the Cerebral Palsied Child" (W. H. Knirr); "Research and Progress in the Allied Arts" (D. G. Bowling; L. Karel); "Survey of Musical Style for Band" (D. K. Anderson); "Principal Instrumental Forms of the Baroque Era" (W. Morie); "Trends in Piano Class Instruction 1815 to 1962" (W. H. Richards); "Musical Taste as Indicated by Records Owned by College Students with Varying High School Music Experiences" (T. E. Birch); "A Study in Improving the Interpretation of Selected Arias from Standard Operas" (P. W. Walker); and "A Method of Teaching Elementary Vocal Music Reading Based on Principles of Fixed Pitch" (A. M. Geders). Articles in Volume 1, Number 2 are: "Directions for Improvement of Research in Music Education" (C. A. Burmeister); "Twentieth Century Music for Elementary School Children" (B. Thompson); "Teaching Music Classes through Closed-Circuited Television" (R. O. Garcia); "Report on the Ford Foundation Composer Project in University City" (D. Morrill); "Sixteenth Century Polyphony" (S. Dorn); and "The Philosophies and Attitudes of Selected Music Teachers toward Music Education" (M. O. Johnson). Articles in Volume 1, Number 3 are: "Status Studies and Recommendations of the Missouri Music Educators College and University Division in the Areas of Music History Teaching, Music Theory Teaching, and Music Student Teaching Practices" (M. H. Wurtz; L. Karel; L. Bulgin); "Bases for the Appearance of Musical Instruments in Visual Works of Art" (E. E. Rousseau); "Some Notes Concerning Performance of Renaissance Choral Music" (O. Johnson); "Haydn, Music, and Literature" (W. Prante); and "An Investigation of the Effect of Three Contrasting Types of Music on the Electric Potential Generated by the Human Brain" (F. B. McCurry; R. K. Watkins; I. Hirsh). Articles in Volume 1, Number 4 are: "The Senior

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Comprehensive Examination as a Means of Improving Music Theory Teaching in Missouri Colleges and Universities" (L. Karel); "Structural Learning and Music Reading" (B. Cook); "The French Horn, A Right Handed Instrument" (K. Schultz); "An Exploratory Study in a Use of the Violin and Recorder as Teaching Tools in Elementary School Music Classes" (C. Hoffer); and "An Appraisal of Group Singing of Sixth Graders, in Twenty-five Elementary Schools, in a Midwestern City of One Hundred Thousand" (C. Hansford; P. Mathews; C. Hoffer). Articles in Volume 1, Number 5 are: "Missouri Music Educators Association and Action Research in the Schools of Missouri" (D. Anderson); "Automated Teaching System for Functional Piano Skills" (D. Ellingson); "Gottfried Reiche, Notes on His Art, Life, Instruments, and Music" (D. Urban); "A Study of the Ratings Received by Missouri High Schools Participating in the District Music Festivals from 1959-1965" (M. O. Johnson; K. Toalson; G. C. Alter; R. A. Wolter; B. E. Markley); "A Study of the Effectiveness of Music Lessons Presented via Closed Circuit Television as Compared with Lessons Presented Directly in the Class Room" (R. Garcia); and "Developing Patterns of the Undergraduate Music Education Curriculum in the United States" (C. L. Lee). (BT)

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Missouri Journal of Research in Music Education, 1962-1966

Lewis B. Hilton, Editor

Volume 1, Numbers 1-5

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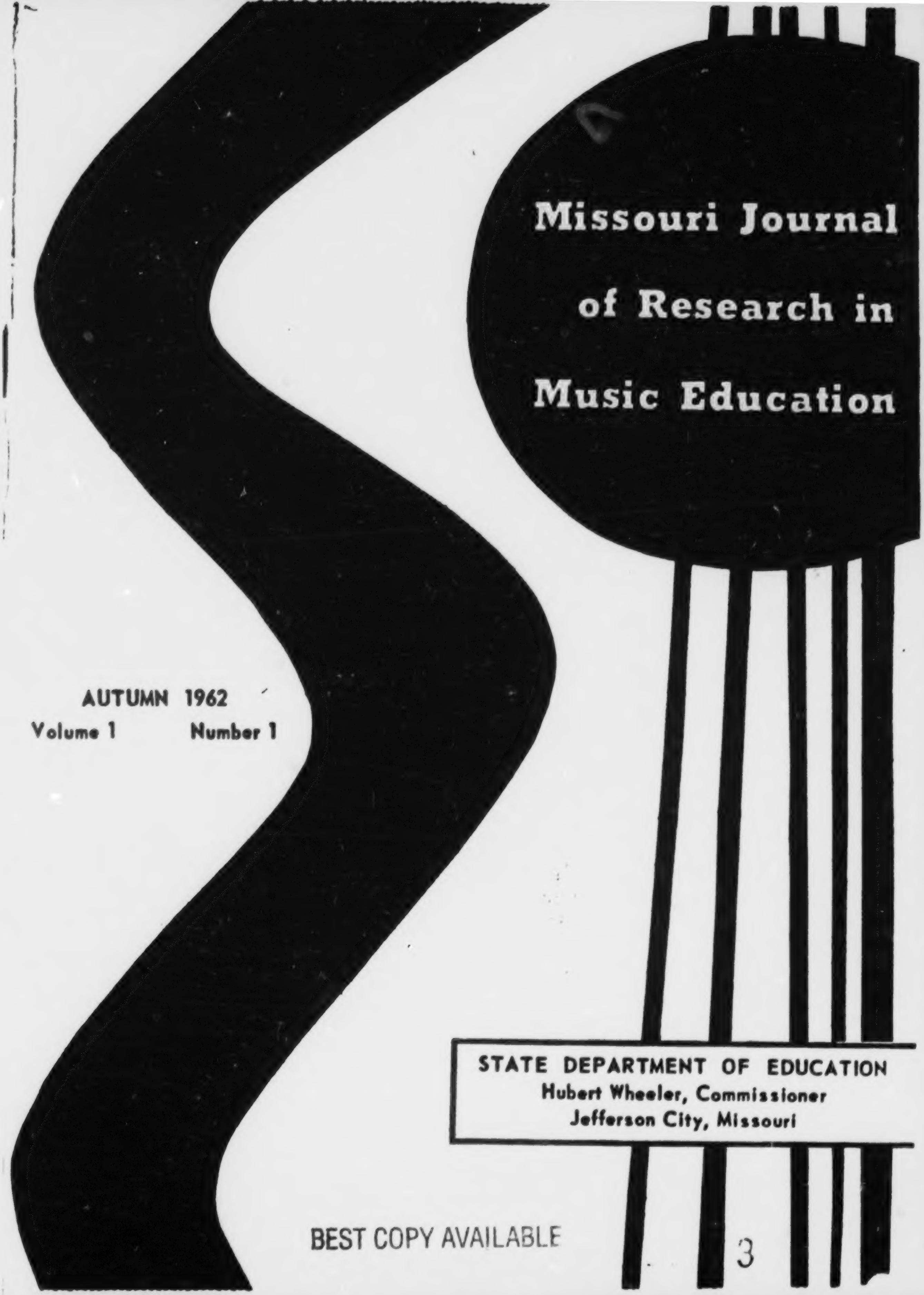

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AUTUMN 1962
Volume 1 Number 1

STATE DEPARTMENT OF EDUCATION
Hubert Wheeler, Commissioner
Jefferson City, Missouri

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MISSOURI JOURNAL OF RESEARCH IN MUSIC EDUCATION

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Volume I 1962 Number 1

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MISSOURI JOURNAL OF RESEARCH IN MUSIC EDUCATION

Alfred W. Bleckschmidt, Director
Supervisor, Fine Arts Education
State Department of Education

Dr. Lewis B. Hilton, Editor
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Contributions to this journal should be sent to Alfred W. Bleckschmidt, Supervisor, Fine Arts Education, State Department of Education, or Dr. Lewis Hilton, Editor, Washington University, St. Louis. Authors should observe the following rules in preparing their manuscripts: The editors welcome contributions of a philosophical, historical or scientific nature which report the results of esearch pertinent in any way to nstruction in music as carried on n the educational institutions of Missouri. Articles should be typewritten with double spacing hroughout, including footnotes, ong quotations, and itemized lists. Footnotes should be placed consecutively at the end of the article, beginning on a new page; using triple spacing between notes. Authors reporting quantitative studies may substitute a list of references for footnotes in accordance with the practice followed in many scientific journals. In all instances, manuscript style should follow recommendations made in the MLA Style Sheet. The Chicago Manual of Style should be followed in setting up tables, charts and figures, which should be numbered and placed on separate pages. (Suggestions to authors is reprinted from MENC Publication, Journal of Research in Music Education.)

FOREWORD

Research has long been considered a basic and necessary process if improvement is to be made in any area. Research in the field of education is no exception. One is compelled to look with considerable pride to the widespread program of scientific investigations and study being undertaken today encompassing all fields of learning.

The research projects reported in this bulletin give some idea of the scope of thinking being done by those in the teaching field, by college students on the graduate and undergraduate levels, and by pupils in the secondary schools of Missouri. The authors of these projects are to be commended for their scholarly approach to the studies they have made. They should make a significant contribution to the field of music education.

Since the research activities reported in this bulletin pertain to music education, it would seem desirable for all music education students in colleges and universities of Missouri to become thoroughly acquainted with the work being done in the field of research throughout this State. It would also be desirable if the results of these research undertakings could be studied, evaluated, and implemented into the teaching process when feasible and applicable, thereby strengthening the general program of music education.

H. Pat Wardlaw

Assistant Commissioner
Division of Instruction
Director of Vocational Education

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PREFACE

The Missouri Journal of Research in Music Education is a publication devoted to the needs and interests of the school and college music teachers of Missouri and of the nation. It is published as a Bulletin of the State Department of Education. This initial publication will give some evidence of the intended scope of the journal. Besides the publication of reports of research or experimentation in progress or completed, included are abstracts of theses, articles of a philosophical nature, as well as simple reports on the results of successful musical pedagogy. Also included is an excerpt from a research paper written by a Missouri high school student (No. VIII by Wayne Morie). It is the hope of those who prepared this Journal that it will prove to be a useful means for the exchange of experiences, opinions, and research among practicing music educators as well as those preparing to enter the profession including those high school students who are interested in music and may eventually enter the field of music education.

Since this publication is not copyrighted, complete articles or excerpts from articles may be made without charge. In so doing, it is requested that credit be given to the Missouri Journal of Research in Music Education.

Copies of this Journal are obtainable from the Missouri State Department of Education.

Grateful appreciation is expressed to those who have assisted in any way in the preparation of this bulletin.

TOWARD THE DEVELOPMENT OF A MUSIC CURRICULUM BASED ON THE MATURATION OF THE CHILD

ARMAND KITTO
Webster Grove Public Schools

An implicit agreement seems to pervade the general music education scene that certain musical activities are appropriate at certain times in a child's school career. To be sure, there is much disagreement as to the materials to be used, what the emphases should be, and at what time these activities should be engaged in. But the assumption is basic; it cannot be escaped if one is to teach. The crisis arises, however, when one must find something on which to base his assumptions. Even though we have textbooks which attempt to outline in general or detail what the approach should be, there is still confusion of philosophy and practice in the teaching of music in our schools. Contrary to expectations, studies outlining techniques based on the maturational idea, such as Mursell's *Education for Musical Growth,*[1] contain little depth of examination as to what specifically this process is, and which facets of the process relate directly to music. The more scientific examinations of the problems involved, as the Leonard and House *Foundations and Principles of Music Education,*[2] still have in their exposition of the role of perception in musical learning statements which are primarily philosophically oriented, such as:

> Before an observer can find musical meaning in musical experience he must have a knowledge of the musical stimulus and he must respond to it. He must "experience the primary illusion, feel the consistent movement and recognize at once the commanding form which makes the piece an inviolable whole."[2]

The authors then state that one must have a knowledge of musical stimulus and respond to it. Knowledge of a given style system, according to the same authors, "... is gained through feelingful experience with expressive music on a developmental level appropriate to the learner . . . . Through musical experience the learner must develop awareness of the modes of arousing tendencies, expectations, inhibition, and resolution acceptable within a given style system."[3]

Questions Unanswered

This is certainly logical but does not answer some of the basic questions, among which are: 1. What capacities and processes make the recognition of the "commanding form of an inviolable whole" possible? 2. How does one best obtain a knowledge of musical stimulus? 3. What does response to musical stimulation mean, and how does one determine what the "developmental level appropriate to the learner" is?

Scientific Guidlines

If music teaching is to have adequate scientific guidelines, then we must set about to seek a foundation on which to erect them. The first matter that should be examined is perception, since music is an art dependent on the sensory processes. Leonard and House's definition is a good one to work from: "an act by which meaning is gained from the sensory processes while a stimulus is present."[4] Let us examine some of the perceptual factors involved in music.

It has been established by Jacobson[5] that the rhythmic response is a perceptual-motor one, and Ruckmick's motor theory seems the concept best supported by experiment. The conclusions of his work are best summarized in his own words.

> Kinaesthesis is prominent; but it may be kinaesthesis of the limbs or head, of gross bodily movements, of respiration, of vague organic disturbances in chest and abdomen, or of articulation . . . . In almost every case of reported head and limb, or respiratory movement made by O, E was able to verify the report by actual observation of movement.[6]

Avoiding for the moment other conclusions of this study, it would seem that since the kinaesthesis is observable in almost every case, the method of simple observation might be satisfactory, were there sufficient evidence, and also standards for interpreting the evidence. All that has been gathered on the first point to my knowledge is information of individual teachers or groups of teachers on techniques and materials which have "worked". There has been no attempt to synthesize or generalize as to what conditions within the child at any given time made it possible for these techniques and materials to be effective. As to the second point, I have not yet found any interpretation of why it is valuable that these techniques and materials "work." To what end do they work, why is this end important and how is it determined that they have been made a part of the child's knowledge which he can recall in the future performance of tasks related to total concepts which are the eventual goal of the teacher?

What other information do we have as to children's rhythmic perception? There are the standardized tests of musical ability which essay to measure rhythmic perception. However, even if we accept the idea that given tests do reflect a measure of one's ability to perceive rhythmic figures, or at least factors relating to rhythm, then we are still frustrated, because these tests are not given in such a way as to measure the ability on the basis of development and, consequently do not statistically show results of this sort. Of course, many of these tests, based as they are on a certain amount of verbalization, are usable only after certain verbal skills are developed. In addition, many of them are designed primarily for group use, and in the case of the most used of the ability tests, the *Seashore Measures*[7], the test is recommended for use with persons of fifth or higher educational level only. Consequently, we are still unenlightened as to when children develop certain rhythmic skills in music.

Now, if we accept the point of view expressed by Lundin in *An Objective Psychology of Music*[8] that rhythmic responses are a motor development, rather than inherited abilities as Seashore[9] proposes, or partly a function of bodily processes as Dalcroze[10] maintained – and this does seem to be the view best supported by experimental work – then we must ask the question, not how can we test these innate rhythmic response abilities, but, rather, how can we test the development of a child's motor ability in perception of and rhythmic response to music.

It seems to me that a valid approach to this problem is suggested in the method used by Heinlein[11] in studying rhythmic responses of children and his drawing conclusions in evaluating the method of simple observation of these responses. His method was to use a runway which had electric contacts designed to record the subject children's steps as they attempted to follow the directions to walk to the beat of the music. As a result of the study he believes that adults are prone to project their own attitudes on to children in such a situation where only simple observation is the method of approach. If this is so, then certainly our own information as to curricula and teaching materials cannot intelligently be based on the simple observation method but requires a more objective approach such as used by Heinlein.

Let us move into the area of the perceptual concept in relation to pitch discrimination. There is general agreement, I think, that the ability to discriminate between pitch differences bears a relationship to one's potential for developing musical skills, knowledge, and understanding. What this relationship may be, is certainly not understood, either in terms of what is considered total musical ability or to musical achievement. Also, tests for this ability depend on verbal skills, although there is hope, in my opinion, of solving this difficulty in the use of the Conn chromatic stroboscope with which the actual matching of pitches can be checked visually.

Seashore has expressed the following opinion on ability to discriminate pitch:

> It seems probable that just as the physical eye of the child at the age of three is as keen as it will ever be, so the pitch sensitiveness in the ear reaches its maximum very early. Development in the use of the sense of pitch with maturation consists in acquiring habits and meanings, interests, desires, and musical knowledge, rather than in the improvement of the sense organ.
>
> The physiological limit for hearing pitch does not improve with training. Training, like maturation, results in the conscious recognition of the nature of pitch, its meaning, and the development of habits of use in musical operations. Training probably does not modify the capacity of the sense organ any more than the playing of the good violin may improve the quality of its tone.[12]

Here Seashore equates general acuity with specific function, but an ability to hear a pair of pitches does not automatically mean that a subject will be able to judge the relative "highness" or "lowness" of these pitches unless he has learned the meaning of these terms and can apply them. Of course, Seashore also makes the assumption in this comparison that the part about the eye is true, and although it is beyond the scope of this paper to examine this question, we could not assume the validity of the statement until the first part of it was substantiated, if then.

Lundin states:

> These studies (on pitch discrimination) give fairly

> conclusive evidence that ability to discriminate pitches is not an absolute given trait. Like other forms of behavior, it is subject to change. Pitch discrimination is behavior which is not merely a function of a sense organ as was previously presumed, but behavior of a discriminative sort *developed* through interaction with stimulus objects. This behavior is subject to change and improvement through casual learning or by means of a contrived situation – where a prepared series of training procedures is prescribed.[13]

Thus again, as in the case of rhythmic perception, we have to an extent separated biological capacity for a specific type of training from the behavioral manifestation of that training.

The two preceding items of rhythmic and pitch perception are in a basic sort of relation to music, and it must be remembered that we have not approached the question of total musicality, but simply factors which do relate closely to music and are relatively isolable.

A further step from these would be auditory perception in relation to a concept of movement, at once more complex, and certainly less supported by scientific inquiry than either of the more basic items above. Bartley in *Principles of Perception* says:

> Hearing thus gives us a mechanism that at one and the same time involves sensory processes with their means of transfer (signaling) between persons, and relatively space-free tool for abstract symbolism in the parties involved.[14]

It is clear that if we have in audition the means of receiving the sounds which can be used for abstract symbolism, then it is the capability for hearing on an absolute basis, not related to interpreting the abstract symbolism which must be examined for maturational purposes. What, physically, must be present in order to perceive the particular aspects of tonal sound that make possible a valid response?

Let us go to what, in my opinion, represents the apex of musical responsive complexity, the aesthetic response. Lundin characterizes this reaction as follows:

> "The aesthetic response is highly *attentional*. The entire response equipment of the organism is directed toward the stimulus object. Such an intense attention reaction is going to require *much of the organism's equipment*. (Italics here mine) The aesthetic response is also a *perceptual* reaction."

Proposed Areas For Research

Following the thought of this quotation, which seems supported primarily by Hevner's study,[15] it would appear that to find out at what point in a child's development the aesthetic experience can be anticipated or expected, we need to determine what biological capacities must be present for this consuming activity. With this answered we will still have to know if there are different levels of aesthetic perception dependent on maturation, rather than on training or initial biological capacity, and, if so, when they develop.

From the exploration of the foregoing facets of musical perception I would propose the following theses: 1. That perception is essential to music, 2. that perception is the result of biological capacities, 3. that these biological capacities are not innate *musical* capacities, but conditions existing which render musical learning possible, 4. that these capacities probably are not static from birth, and 5. that were these biological capacities defined and possible of testing, we could determine at what levels certain learning tasks are most appropriate.

Actual experiment to explore the above postulates has not at all been done, although it seems that much of the thinking of objective psychologists points in the direction of these theses. Very little has been done to determine when certain biological capacities are present which would make the presentation of a particular idea most fruitful. We must begin with the rudimentary if an adequate superstructure is to be built. How can we decide what factors are involved in musical understanding or musical skills if we do not know what produces the basic response? Until some efforts are made to discover which factors influence musical abilities and at what stage they develop, there can be only a continuation of our Babel of advices and "do-it-yourself" attitudes. We cannot hope even to approach a common solution of a continuum or a core of concepts to be approached at a particular level. Because of the paucity of scientific material bearing on this study I hope that some research will be forthcoming.

Through experiment and thoughtful probing the relationship between the components of music and the totality of music as well as human perception of these should give us a yardstick for developing a reasonable and effective approach for a course of study in school music. This will concern, among other things, getting away from verbalization in tests for these factors. If we can determine without the intermediacy of words what biological and psychological things make it possible for specific musical activities to take place, then we will be able to get away from the subjective judgments which cause a great deal of our disagreement. Perhaps in the field of cybernetics and the interpretation of brain-wave impulses we have a possible route to travel toward this goal. These ideas I hope to persue at a later date.

Certainly men like Meyer in *Emotion and Meaning in Music*[16] are pointing the way to a more objective view of music and music learning. The next step should be in the direction of the human organism in response to the object on a very basic level, so that we may more effectively precipitate in our students musical understanding, knowledge and skills.

Footnotes

1. Mursell, James L., *Education for Musical Growth*, Boston: Ginn and Co., 1948.

2. Leonhard, Charles, and House, Robert W., *Foundations and Principles of Music Education*, New York: McGraw-Hill Book Co., Inc., 1959. p. iii. The quotation within the Leonhard and House reference is from Langer, Susanne K., *Feeling and Form*, New York: Charles Scribner's sons, 1953. p. 147

3. Leonhard and House, loc. cit.

4. Leonhard and House, op. cit. p. 110

5. Jacobson, E., "Electrophysiology of Mental Activities", *American Journal of Psychology,* 1932. no. 44, pp. 677-694

6. Ruckmick, C. A., "The Role of Kinaesthesis In the Perception of Rhythm", *American Journal of Psychology,* 1913. no. 24, pp. 303-359

7. Seashore, C. E., Lewis, D., and Saetveit, J. G., *Seashore Measures of Musical Talents (Revised Edition),* New York: The Psychological Corporation, 1939.

8. Lundin, Robert W., *An Objective Psychology of Music,* New York: The Ronald Press Company, 1953.

9. Seashore, C. E., *Psychology of Music,* New York: McGraw-Hill Book Co., Inc., 1939. p. 330

10. Jacques-Dalcroze, E., *Rhythm, Music, and Education,* (translated by Rubenstein) New York: G. P. Putnam's Sons, Inc., 1921.

11. Heinlein, C. P., "A New Method of Studying the Rhythmic Responses of Children Together With An Evaluation of the Method of Simple Observation", *Pediatric Seminar and the Journal of Genetic Psychology,* 1929. no. 36, pp. 205-228

12. Seashore, C. E., op. cit. p. 58

13. Lundin, Robert W., op. cit. p. 28

14. Bartley, S. Howard, *Principles of Perception,* New York: Harper and Brothers, 1959. p. 312

15. Hevner, K., "The Aesthetic Experience: A Psychological Description", *Psychological Review,* 1937. no. 44, p. 257

16. Meyer, Leonard B., *Emotion and Meaning in Music,* Chicago: University of Chicago Press, 1956.

MUSICAL VALUES AND THE STRING CLASS

JOHN LANG
University City Public Schools

Much lip-service is given these days to the importance of teaching musicianship, and every music teacher nods his head gravely when the subject is mentioned. Ask any teacher of vocal or instrumental music if he thinks that musical values are important to the end-product of his classes and the answer is a ringing, of course! Then ask this same proponent how he goes about achieving such outcomes through the regular class routine, and the air is suddenly full of generalities and high-sounding words, all of which add up to the same old theme – the students are singing and playing the notes the way the teacher asks them to sing and play, and few if any of the pupils, left to their own devices, could recreate *music.*

Teaching Basic Concepts

There is little difference in the desired objectives of music education at any level. The elementary levels through the secondary are distinguishable only by the degree of complexity in dealing with the materials of music. Educationists agree substantially that basic concepts can be taught at any age level providing the principles involved are presented in language and form understandable to the learner. One of the most misused opportunities for real musical learning is the beginning instrumental music class. The usual procedure here is to place an instrument in the hands of a nine or ten-year-old pupil and teach with one single objective – to have him read and play the notes in the book soon, and with as much technical facility as possible. Evaluation of progress by the teacher is largely based on the relative ease with which the notes are played, and the child evaluates his own musical ability in terms of technical proficiency in relation to other members of the class. If Tom cannot play as fast or as accurately as others, he assumes he lacks musical ability, and in frustration, drops "music".

The obvious conclusion to be drawn from such instruction and judgments is of course that the teacher was not presenting, nor the student involved in, musical experiences. Much student disaffection of this kind could be avoided, for few children who have had a truly musical experience will turn their backs on the art form that has provided that experience.

This paper is not intended to provide a cure-all for instrumental teachers concerned about the mortality rate in their beginning classes, nor a panacea for all the other ills of music education. It does hope to clarify to some extent the nature of the esthetic experience as it relates to musical values; the importance of the structural approach in presenting basic musical concepts; and principles to guide the teacher in developing these musical concepts in the members of a beginning string class. The principles set forth apply equally well to any music class, but the writer has singled out the beginning string class for several reasons. First, the stringed instruments lend themselves well to the realization of musical experiences. Second, many teachers now engaged in instrumental instruction avoid inaugurating a string program in addition to the existent band organization largely because they believe there is something extremely difficult about the teaching of strings if they themselves have not had intensive string instruction. Actually, strings as well as the other instrumental categories will progress satisfactorily under the guidance of the non-specialist if the techniques are used as a means to musical experiences instead of in and for themselves.

Two Levels of Music Teaching

This paper proposes that the teaching of music should always move on two levels, and that the resultant generalizations from this approach will assist the pupil toward the accepted goal of education, namely that all learning should serve him in the future, and allow him to go further with more ease.[8] These two concepts of method and outcomes for education actually have a great deal in common. McMurray[9] proposes that effective teaching of any subject should proceed at two levels simultaneously. One level – the most difficult for the learner to alter – is that of habit and the learner's present day-to-day construct of his world. The second level is one of intellectual concept; of basic principles; of generalizations formed as a result of experiences and perceptions and the prior experiences and understandings the student brings to the new situation. This is the level of constant change and shift during the process of continued learning.

The first, or "lower" level of teaching is concerned with the pupils' habits of conceiving, perceiving, observing, and thinking about his environment in relation to himself. The second level on which all teaching should consciously proceed in that of basic concept, or structure; the generalized character of the whole field of interest. Wertheimer,[10] the founder of the Gestalt school of psychology, calls it "structural truth." Bruner[8] considers this one of the four primary concerns in the process of education, and while recognizing the need for much research in the techniques of presentation, states that there is ample proof available that thorough teaching of basic underlying principles (structure) of a field of inquiry is vital to continued learning. McMurray presents these two levels as a dialectic process of interaction and synthesis which moves always forward and upward toward more refined structural generalizations, re-evaluating, revising, and rearranging previous knowledge and beliefs to allow for new learning. He uses the example of language study, wherein a person is taught only superficial usage of his own language, for his exercise of the language will be limited to just this level of habit. If, however, the person is provided with *understanding* of the grammatical principles, or structure, of his language he will be able to make constant improvement in his usage by applying his "second level" generalizations to his "lower level" habits – a dialectic process. McMurray further proposes that the distinction be carefully made by the teacher for the learner between what appears in the common sense level and intellectual constructions about these common sense observations.

The broader concepts, or generalizations, which make up the second level may be considered to be groupings of the smaller, more numerous concepts acquired at the lower level. This has particular significance for a teacher dealing with younger children. Brownell[3] maintains that generalizations are the most difficult mental constructs to achieve, for they are more complicated than any of their component concepts.

Bruner, in discussing learning readiness, however, hypothesizes that any subject can be taught to any child in some honest form, and that curriculum should be built around the great issues, principles, and values that society wishes continued. To him, learning is a growth process which leads gradually to responses of an increasingly more mature level, and grasping structure of a subject is understanding it in a way that permits many other things to be related to meaningfully. He takes the logical and sensible view that whether an individual knows the formal name of "operations" is less important for the transfer of learning than whether he is able to *use* these operations.

If we accept the foregoing as a foundation principle of methodology, what is there in music which can be called its structural basis? What concept or concepts constitute the structure of music? Let us consult first the general field of esthetics.

Esthetic Forms and Music Teaching

In the field of the arts, and music within them, Parker[13] reduces esthetic form characteristics to their simplest principles, and refines the group to six; organic unity (unity in variety), principle of the theme, principle of thematic variation, balance, principle of hierarchy, and evolution. These characteristics can be applied equally to any branch of the arts, and any one principle left out of unskillfully utilized, would detract measureably from the total effectiveness, or expressiveness, of the work.

In the field of music, esthetic form is expressed by the musical composition, and, given the materials of composition, the designer uses these same basic principles in ideal relationship in order to construct his contribution to art. Broudy sums up the creation of of musical form thus:

> For the whole purpose of composition is to weave these materials into a pattern that has continuity and dramatic structure. That is to say, the materials are put together in such a way that tensions are created, sustained, and resolved; questions are asked and answered, balances achieved, upset, and restored. Let us call this continuity and structure the form or design of the composition. And let us call this dramatic and tensional structure of the music its *esthetic* form to distinguish it from the more specific *musical* forms such as the concerto, rondo, or fogue.... The more general esthetic form is that arrangement of elements that attracts, holds, and directs the interest of the listener.[7]

Clearly the basic principles of esthetic form combined in unique proportion complete the esthetic object itself, but to what end? Here we are dealing with the focal point of any esthetic entity, its expressive impact. Leonhard and House state the esthetic purpose succinctly as one of their basic tenets for music education.

> Music attains significance only through its expressive appeal, and all work with music must be carried on with full cognizance of its expressive appeal.[8]

Expressiveness is the Basic Value of Music

Expressiveness, then is the basic value of music. The quality of the esthetic form is directly related to its expressiveness. We now have the musical foundation for our second level or teaching, and its importance in the music education process cannot be overestimated, for it constitutes our musical "structure". Paul van Bodegraven leaves no doubt in our minds about this point when he says:

> The human values which can be derived from experience with music are primarily based on its esthetic qualities. Experience with music which contains such esthetic qualities will lead to the development of taste and discrimination, a basic aim of music education.[16]

The purposes of this paper are not served by a lengthy discussion of the psychological foundations of musical response. The subject has been explored at length by many brilliant researchers over many years, and the old argument about whether "beauty is in the eye of the beholder or in the object itself" is too complicated for even synopsis here. Mursell ties the essential parts of the esthetic process together with these words:

> What is evidently required is continually to stress and, indeed, continually to center upon esthetic values. Progress in the arts means progressive strengthening and refinement of responsiveness to the evocative values of expressive pattern. This, indeed is the basic formula, clearly indicated by everything we know.[12]

Interest in music on the part of students is in direct proportion to their meaningful experience with music and their esthetic response to music. According to Leonhard and House, "the only sound basis for music education is the development of the natural responsiveness that all human beings possess."[8]

Review of Basic Principles

A brief review seems indicated at this point. Of the three stated objectives of this paper, two have been developed. To the necessary extent, the nature of the esthetic experience has been related to musical values, and the importance of structure and basic values to music education has been delineated. In brief, we have said that basic esthetic form, which in this discussion must be musical value, is the fundamental concept to be transmitted, via musical experiences on the part of the student. Responsiveness is to be encouraged, and the understanding of the structural concept of music is to be taught along with the techniques of performance. With these in mind, let us examine the third.

The Three Modalities of Music Teaching

The music educator is in a rather unique position. In fostering musical growth in his class he is aware, or should be, that his subject is really three subjects in one; creation, recreation, and pleasurable response. Mursell sees these three as modalities, and chooses to call them production, reproduction, and enjoyment, "at all levels."[12] The difficulty often starts here when the teacher sees his subject from the narrow aspect of reproduction only. Much of this emphasis by teachers of instrumental music on performance is due to the mistaken impression that techniques of musical reproduction are the only product that can be reasonably expected of the young pupil. This is a gross error, and evidence to the contrary is plentiful. Regarding esthetic learnings and the developmental sequence, Swenson has written:

> Children, like adults, can most certainly appreciate esthetic experiences *at their level...* We need to take the child where he is esthetically and lead him gradually to such levels of esthetic performance and appreciation as he is able to attain.

The key word here is appreciation, for it is equated in context with understandings. She goes on to say:

> One of the most serious blunders in guiding the esthetic learnings of children in the elementary school is the too-prevalent stress upon performance at the expense of appreciation.[15]

It is difficult to ascertain in all cases of improper emphasis whether the fault lies in the fact that the instructor himself makes no real connection between the acquisition of technical skills and the whole structure of music, or whether, as Oleta Benn points out, "esthetic concepts, because of their familiarity to musicians are constantly in danger of being assumed."[1] Whichever reason is basically responsible, the results are the same. The pupil loses.

Dearth of Enlightened String Method Books

The writer has made a diligent search in books and periodicals for evidence in the philosophy and methodology of string instructors that this fundamental to music pedagogy is not "assumed". By and large, most of the results have been negative. Some who write in this area of music education start their discussions in promising fashion, using musical expression, musical context, melodic line, and so on quite knowledgeably. Then with unerring instinct they lead the reader into a morass of technical details about where the right arm should be, problems of the chinrest, and so on, ad nauseam. Attitudes such as "the beginner who plays by ear is a problem" and Seashore's viewpoint of "techniques now and musical understandings later" were all too common. There were some excellent studies and philosophies uncovered, too. John W. Shepard,[14] in his doctoral dissertation at the University of Illinois, has compiled an impressive presentation of string teaching in the public schools from general objectives to principles of method, and Molnar,[10] in writings for periodicals, displays a real understanding of the application of musical values to the string class. These are rare examples of the kind of thinking and activity so highly desired in string programs everywhere. These men are recommending and using the "second level of teaching" though it is not singled out and identified as such.

Assume that our string instructor has seen the necessity for broadening his outlook and wishes to include the teaching of musical values in his procedure. What is the most important single principle to guide activities in the class, and what are the elements that go to make it up?

Philosophical Guide Lines for the String Teacher

Uppermost in the mind of the teacher should be the stimulation of musical expressiveness. This is the considered opinion of every leading music educationist and practitioner. For example, Mursell writes:

> He (the performer of music) must project its emotional and spiritual meaning. This is true all the way from the simplest grade-school song to the most elaborate symphony.[11]

And Shepard places similar emphasis on this principle, writing:

> Since the end product of the learning in string instruction in the public school is concerned with stimulating increased powers of musical expression and increased musical self-reliance, . . . means to these ends should be constantly concerned with musical expressiveness from the very first string class activities.[14]

If we grant that musical expressiveness is the focal point of our methodology, what are the elements, or vehicles, of musical expression? Copland[5] sees tone, melody, rhythm, harmony, and structural form as the basic elements in music, and he is joined in this opinion by other composers and analysts. These elements are the tools which the composer of music uses to convey his ideas, and by the same token are the means the teacher must use through his own deep understanding and "second level" teaching to guide the young string player in musical growth. Shepard maintains "that performance skills be approached directly through the expressive elements of the music itself, and an awareness by the student of the expressive elements as intrinsic to the music to be performed."[14] Which brings us to the crux of the matter, for the string teacher may look at his group of beginners in the string class and ask himself "What chance have I to teach 'structure' to nine and ten-year-olds?"

Teaching Structure

Several experts have lent their support to the feasibility of this. Inhelder and Piaget have conducted exhaustive experiments in the field of conceptual learnings from the early years to maturity, and have determined that children between seven and eleven years of age have acquired the ability to carry out what they refer to as "concrete operations" which enable the pupil to "organize means independently of the direct impetus toward goal achievement."[6] These, for our purposes, would be translated into the techniques of playing the instrument, reading music, habits of behavior, and so on. This would be the first level of our approach, but these researchers lead us directly to the second level with the statement to the effect that concrete operations make actual experience imperative. The experience, coupled with the previous experiences of the student, will contribute to the formation of correct generalizations. These generalizations constitute the second level of learning, and their correctness and quality depends entirely upon meaningful contributory experiences. The teacher may get some additional confidence from Bruner when he says:

> What is most important for teaching basic concepts is that the child be helped to pass progressively from concrete thinking to the utilization of more conceptually adequate modes of thought. But it is futile to attempt this by presenting formal explanations based on a logic that is distant from the child's manner of thinking and sterile in its implications for him.[4]

And finally he gives unequivocal requirements to the educator.

> How do we tailor fundamental knowledge to the interests and capacities of children? . . . It requires a combination of deep understanding and patient honesty to present physical or any other phenomena in a way that is simultaneously exciting, correct, and rewardingly comprehensible.[4]

Tonal Experience as Primary Factor

Given the essential elements of musical expressiveness, and the knowledge that musical values can be taught to our young pupils, where do we begin? Obviously the one element without which the remainder could not function is the dominant element, tone. Broudy says:

> The raw materials of musical experiences are tones. Each tone has its own qualities of pitch, loudness, and timbre. These qualities constitute the sensuous material of music, just as colors and lines are the sensuous materials of painting.[2]

In the string class there are many outright advantages in the nature of the instruments and their playing that make tonal experiences an automatic adjunct to instruction if the teacher is oriented in his thinking toward these ends. The bodily motion required of strings by the use of the bow, the open strings available to the outright beginner, the close association of child and instrument, and the intense vibratory connection between string, wood, and hand and ear are all tremendous assistants in providing musical experiences. It remains for the teacher to realize this potential and capitalize on it through understanding and careful presentation. Shepard stresses the importance of this fundamental element in the musical experience by declaring:

> Musical expression may be defined as a form of esthetic expression that uses sound, or more accurately, tone, as its medium and consists of the meaningful organization of this tone by the composer and sensation, perception, and structuring of the tone by the performer and by the listener if he is to have a true musical experience.[14]

If the teacher keeps in mind that tone is the principal vehicle for musical expressiveness, and introduces the other elements in contextual and logical fashion through *music*, little difficulty will be found in procedural implementation. Introducing music through the ear – for music is an aural process – by beginning with rote tunes and exercises derived from exploratory materials to acquaint the pupil with the many tonal possibilities of these instruments is an example of the correct approach.

Teaching Elements other than Tone

It is not the writer's purpose to discuss in detail all the possible teaching techniques in presenting the elements of musical expression. With tone as the underlying factor, the other elements can and should be presented in organized experiences, stressing the elemental relationships for the formation of correct concepts; the whole song – not a few isolated tones, responds to sound stimuli from the very first. Tones arranged in time and in relationships that make up expressive form are the stuff of music. Melody is the simplest design resulting from this combination, and evokes quick and pleasurable response from children. What better way to introduce our young beginner to elemental organization? This simple framework and its extension into complex forms is the whole basis for our effort toward musical understanding of form. In this connection, Oleta Benn writes:

> Like being forever aware of the qualities of musical sound, one is never free of the necessity of following tonal patterns as they proceed through time. These two activities are begun on the first day of school in every grade and at every level; they are continued in every professional school and by every independent artist who goes before an audience.[1]

Rhythm, harmony, and the structural form of music are part and parcel of every-day teaching, and not something to be saved for "later on." Each expressive element takes its place as the warp and woof of musical expression, and therefore must take its corresponding place in the student's experiences. As was pointed out earlier, it is vital that musical values be imparted to the young student if his interest and curiosity about music are to be stimulated to further learning. Through the use of musical components to achieve musical responses, the second level concepts will be valid and dynamic.

If more detailed application of these principles to the actual teaching situation is desired, allow me to refer the reader to the procedures outlined by John W. Molnar in an article referred to in the bibliography.[10] These techniques will provide an excellent point of departure for the string instructor interested in encouraging *musical* learning in the classroom.

Teaching Music Reading

Regarding that old bone of contention, the reading of music, (and Mr. Molnar's methods include this, too) let it wait for a desire or need on the part of the class. After all, as Beatrice Landeck says:

> No one would dream of making a child discover language through reading alone. And yet many teachers have thought it possible to teach music that way.[7]

The Role of Listening

Finally, it is well to remember the role that *listening* plays in every phase and branch of music. As was stated earlier, music is an aural art, and no composer, performer, or audience member, or *student* can be allowed to forget this fact. The string player, in particular, is listening constantly, for he has no mechanical device to guarantee that the desired sound will be achieved just by pressing his finger down. His ear must guide his fingers, his bow, and all the constituent thoughts and actions necessary to musical expressiveness. By helping the student to put musical components together in a meaningful way, to realize what he is doing and why he is doing it, we give him the musical understandings which will permit him to do it again in a new setting without outside assistance. This is the whole purpose of teaching musical values, the "structure" of music.

Summary

In the final analysis, the public school music educator is not training his pupils for professionalism. If the child is to become a vital addition to his society, with an interest in music; a potential participant in local ensembles; a season symphony-ticket buyer; an encouraging parent, then the job of the school is to develop appreciation for, and interest in, music.

In closing, the words of Robert Walls seem appropriate, for he believes, too, that all desirable outcomes of the music education program can be achieved through the medium of performance, if such performance is an outgrowth of really musical experiences.

> The vast music instructional program in the public schools of this country is justified by one concept only: That music has something to offer the present and future well-being of the individual.[17]

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THE SLOW LEARNER IN THE HIGH SCHOOL GENERAL MUSIC CLASS

ANGIE L. OLSEN
Pattonville Public Schools

Introduction

Since it is difficult to find material on the slow learner in the music curriculum, and since this writer has had fifteen such homogeneously-grouped classes in her three years as choral and general music teacher at Blessed Sacrament High School, it is hoped this information derived from reference articles and classroom observation will prove helpful.

Characteristics of the Slow Learner

The term slow learner is used to describe those students who, because of some physical, mental, or emotional handicap, are retarded in their ability to acquire knowledge or skill. Some may possess potential musical abilities higher than their intellectual aptitudes, while others will show an ambivalence toward the arts because they have been deprived of a normal middle-class cultural environment.[1]

For practical purposes an I.Q. of 75 to 90 will generally indicate a slow learner. Those with reading levels below 80 are slow learners in subjects using the language arts.[2] A slow learner has some, or many, of the following characteristics: He cannot think in the abstract; he lacks self-criticism and has a narrow range of interests; he often misbehaves; and he may fear the idea of learning itself. (Many people entertain the notion that ignorance relieves one of responsibility.) Success for such a child is a feeling of belonging and a freedom from the frustration of his failings. Because of its varied activities, the General Music class should be rewarding to most slow learners.

The Track System in Catholic Schools of St. Louis

For the past four years the Catholic Archdiocean High Schools of St. Louis have had a three-track system based on I.Q., reading level, achievement tests, and elementary principal recommendation.

At Blessed Sacrament School, a ninth-grade center, general music is required for one semester, with speech being given the remaining part of the year. The C track, or slow-learner group, takes music the first semester in order to have a term of English before taking speech. Track C is subdivided into five groups, each group having about 30 students, with C5 having the lowest achievers. However, the C1 groups were not always the best in either singing or any of the musical objectives. Group spirit, vocal balance and quality, as well as individual attitudes seemed to be the determining factors for success.

The General Music Class at Blessed Sacrament High School

The General Music course includes singing, listening, musicianship, limited performance on the piano and simple rhythmic and melodic instruments, and a unit in acoustics — the reason for sounds, their qualities and limitations, and demonstrations of band and orchestral instruments.

In singing, the changing-voice problem was encountered, but most of the boys in the C sections are older and there are many low voices for part singing if other circumstances are favorable. Only one class presented a vocal problem. In this class there were twenty girls and only six boys. Three boys had voices in the process or changing, so only two-part singing was accomplished.

All students preferred songs with an obvious appeal — flowing melody, definite rhythmic style or "beat" as they like to call it; also songs with humorous or unusual words — "The Deaf Old Woman", "Soldier Won't You Marry Me?", "I Wish I Was", etc. If the classes were more equally divided as to sex, then the singing was more enjoyable and of a better quality. With improved group cooperation more attention could be given to detail.

In the realm of musicianship, theory, form, and note reading were introduced as they were met in the music sung or heard. Not as much ground was covered in theory and form as was accomplished easily with the B and A track students.

The C groups especially liked to take simple melodic and rhythmic dictation. We started with only two or three notes at a time in the melodic line and gradually added a note until the entire scale pattern was learned. After a few sessions of written dictation, many students began to look at their music books a little more closely.

All except the very shy or nervous students liked to come to the piano and play the tunes and intervals called for in our work. The individual keyboard charts and simple rhythmic instruments were also favorite activities. Boys seem to like all kinds of individual musical participation.

Program music was more readily accepted than absolute music unless the themes and musical styles of the pure music had been thoroughly studied. Attention spans are short and complicated orchestral pieces are not appreciated unless some basic relationships can be established during the listening process. The films, *Fundamentals of Acoustics* and *Seeing Sound*, were quite popular.

Both volumes of *Living With Music*[3] were used as textbooks supplemented with enough copies of *General Music*, Volumes Two and Three,[4] to permit adequate classroom participation. General song books used by all classes were Books Seven and Eight of the Birchard Music Series.[5]

All classes kept a scrapbook of current musical events. Sometimes these very items would lead us into musical channels which we had not planned to take. These side trips were easily motivated since the students themselves helped in the planning. (When the Russian Dance Troupe was in town we suddenly became interested in ballet; and when an opera group made the news we listened to both *Carmen* and *Carmen Jones*.

The C5 Group

Detailed information is not available for the first ten classes, but the most recent C5 group was quite interesting because the singing was quite good, and the class accomplished far more than any C5 group before it. There were 10 girls and 16 boys. Their mediants were: Age 14.7, I.Q. 79.9; and Semester Grade C. There were four D averages and three A averages, with two failures who dropped out early enough in the semester to be counted as incomplete. There was one set of twins and a boy who had a twin sister in another class because her I.Q. was eight points higher. Three of the boys lived at an orphanage and one of the girls was an orphan living with foster parents. Ten of the students were from broken homes. The twins were boys with clear, unchanged voices and enjoyed singing very much. They would not try to learn a second part, and always stopped singing unless they could carry the melody. Their voices were so pretty that the entire class urged them to sing the melody rather than remain silent.

John N. had artistic talent and would contribute pictures he drew to fit into our music study. He liked music but would not sing. His music notebook was outstanding in its contents as well as its cover page, and he drew illustrations for the notebooks of a few favored girls who had praised his work.

Tests and Grading

A slow learner is unable to express himself well, so essay-type questions are not successful on tests. Simple true-false, multiple choice, or completion-type questions are the most readily acceptable and seem to give the best results. Tests should be frequent and not too long. Testing allows the student to know what the teacher deems important and gives him a better opportunity to gradually assimilate the basic material. Pupils, even those in a slow-learning group, should not be graded on effort alone. So long as principals insist on few failures in the General Music classes, we will have to be generous with our lower-passing grades; but there is no reason why the upper grades should not be a true reward of merit, reserved for those who have found real satisfaction and success in their General Music Course.

The Value of General Music to the Slow Learner

Music educators believe music has values for all children, and that it may have particular value for the exceptional child.[6]

Miriam Anthon confirms this statement and also agrees with the following conclusions: The same song may not appeal to all classes; a formal course of study must be quite flexible; there must be meaningful repetition; and, although the scope of the music program will be somewhat limited for the slow learner, the need for an abundance of material is great.[7]

With all their idosyncrasies and problems, the slow-learning groups are usually a pleasure to teach. They seem to retain the materials which appeal to them and do not argue or disagree over trifles. As a rule they are a happy group and satisfied with small doses of success and merited praise.

In the final analysis all students are human beings who differ not as specific types or sharp contrasts, but as degrees of one kind. The problems of the slow learner are included in the problems of all conscientious teaching, and their discussions and solutions should be welcomed by the entire field of education.

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MUSIC FOR THE ACADEMICALLY TALENTED HIGH SCHOOL STUDENT

MARTHA HARRIS WURTZ
Washington University

The author has taught a general music type of course in a St. Louis county high school for the last several years.

In 1958 she wrote a master's thesis entitled A HANDBOOK OF MUSICAL STYLE, which was then used as a textbook in her classes. Although that thesis was not designed primarily for gifted children, it is the author's belief that the general music curriculum for the gifted child should vary more in degree than in kind from the desirable curriculum for the average child.

This paper, then, is a brief abstract of the thesis, and an account of the author's experience in teaching its content to average and gifted children.

The thesis named above is available on inter-library loan from Gaylord Music Library at Washington University.

* * * * *

Need for Special Attention

The problem of selection of music courses for the academically talented high school student has in recent years become more and more pressing. Often the students themselves recognize their need to add some training in music to their general education. Also, the criticism leveled at the high schools usually includes criticism of the students' lacks in cultural background. These criticisms are at least partly just, since some schools could improve their offerings in subjects in the various fields of the arts. The criticisms are partly unjust, as any person who has worked in curriculum planning will know. The problems of suitable college preparation are especially difficult to solve in the small- or medium-size school; curriculum cannot always be determined by the staff's knowledge of student need. Problems of budget, school plant, and materials do enter in, together with the ever-present difficulty of time scheduling for each individual student. But good course planning can relieve this situation.

The situation of the student talented *in music* is not so acute. Even when course offerings are limited, music teachers somehow find time to give their attention to the musically talented. These students have an opportunity to study and perform which is not available to students of less performing ability. Thus this paper will deal with only one type of student, the academically talented non-performer, and leave the problems of the prospective college music major for some other time.

Limitations of Performance Oriented Instruction

It is possible for the bright student to work in a performance group, but we know that, though he may become acquainted with much literature in his medium, he will seldom gain any real background which can be carried with him into

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his adult life. A number of possible curriculum solutions then present themselves.

Possible Solutions

The gifted student might enroll in a course in music theory. Because he is gifted, he would have no real trouble in learning to read music, and in learning to manipulate chords, etc. But this is hardly the material that he needs. There is no really good purpose in teaching him the lore of practices in conventional harmony; he will seldom have occasion to apply what he has learned. Theory is of no value unless it can be applied to something. However, some basic knowledge of the fundamentals of music would be of value.

We have already said that the value of performance groups is limited for these students. Over a period of years such pupils could become acquainted with much literature for orchestra, or band, or chorus, etc., but they would be limited in their learning not only by their own ability to perform, but by the abilities of the group. There is a very good chance that much of what they would absorb in such groups would have very little connection with the literature of the concert hall. (Some groups do, of course, perform good music, but there is still the limitation of the medium.) (This is not to say, however, that the gifted student should be forbidden performance. Let him perform, certainly, if he can. It *is* to say that in most cases this is not the solution for the student whose purpose is to add to his general and cultural education an adequate body of knowledge of music generally.)

If performance groups and theory classes are not the answer, then what sort of course will meet the needs of these talented young people? To come finally to a decision, we must first be clear in our aims. We must consider the obligations of public schools in this matter. The schools are not obliged to turn out finished performers from among this group. They are not obliged to produce theorists or composers or conductors. The schools *are* obliged to contribute to the cultural background of students in such a way that the students will develop a discerning taste for music of the best quality. These young people must become intelligent, selective *consumers* of music. In many cases, high school is the last chance these people have to study much of anything outside their specialized field; the demands for very specialized education are so great in many fields that there is never again time actually to devote a class selection to any subject outside the area of specialization.

The Musical Need of the Academically Talented

We must, then, recognize that the needs of the academically talented student are several: He will need the basic tools of fundamentals of music to grasp other information which he needs; he should be allowed, if he wishes, to sing and/or play some; he should study some of the great body of music literature; he should learn whatever history he needs to assist and enhance all his other study of music.

The Solution

There is just such a course possible. It may be called by any of a number of names, but its aims are the same. It may be called General Music or Introduction to Music or Music Appreciation or Music History and Literature or Listening to Music. There is no other course in high school music which can offer to meet all the needs of the gifted non-musician.

To give the course real value for the gifted student, we must use listening to music as the point of departure for all other parts of the course. This is the part of his training that he can retain and carry with him always. It is possible and necessary for the well-rounded person, the well-educated person, to learn a very great deal about music without being able to perform much at all. Students can be taught the stylistic characteristics of the various musical eras; they can easily learn the forms used by various composers. (Just so could they learn such material in any of the arts if only someone would teach them.)

Though there are many teachers who do not agree with this method, the present writer has been most successful with the style-form approach taught with a chronological organization. There are a number of reasons for the success of the method, but one of the most important is that these beginner listeners can start with music of a single line. The pupils can learn to read and sing early monophonic music. With this beginning, it is simple enough to build a growing, progressing body of knowledge since the work can move from simple forms and styles to more complex constructions. It is especially important that this method allows for the building of a working vocabulary of music; it does not suddenly toss the unprepared student into a sea of complex styles, forms, and terms.

Also, with this approach it is possible to give a more lucid picture of related subjects: Students can be given a view of the social scene of each era studied, certainly most important in their general education. In addition, it is far easier in this method to present some material in related arts. There is much to be gained besides education in music. We cannot emphasize too strongly the importance of such background for the truly educated person. Thus it is possible for the music teacher to contribute much to a true education so necessary to the gifted person.

If it is possible within a given class group, some singing should be done. If the singing can be related to the listening, so much the better. But this is not necessary all the time. Whatever is sung, however, must be most carefully chosen. Teachers must give much attention to suitable subject matter in song (not always easy in selecting songs for the gifted, because their mental ability may be far beyond their singing ability). The greatest care must be used in selecting material in suitable range and difficulty. It is important that there be some challenge, but it is also important that there be a reasonable chance for success in learning.

The song material can be connected with both listening and study of the fundamentals of music. Fundamentals must be immediately applicable to have any significance. In addition to the planned progress in the study of fundamentals (i.e., clefs, keys, relations of keys, etc.) students can be taught to apply immediately the material they learn in fundamentals and in song to the music heard. For example, if there is a sequential figure in a song, the student is more likely to recognize such a figure in the music he hears. From a simple study of the functions *(not the part-writing!)* of the I – IV – V chords he can be taught to recognize the key relationships frequently found in the classical application of the sonata-allegro form. To cite still another example, a class might be taught to sing a simple (but good!) round. The group might then try the well-known "Sumer" canon. From these two, the group could learn what a canon is, and from there much could be developed in learning about various kinds of imitative music. Many more examples of useful interchange of materials could be given.

Some simple study of acoustics can be included in the course work. This writer has found that the only problem in teaching this material is that students are so fascinated with some concrete learning about the nature of sound that they would pursue the study indefinitely if allowed to do so.

We can see, then, that a useful course in music for gifted students should include much listening, with really challenging study of the history and literature of music. The work should also include some singing. If it is possible to do so, students should be allowed to play instruments whenever this could be done with value for the individual or the class. The course should include some basic study of the fundamentals of music, including acoustics, since certain tools can be made useful in all the study. Something should be taught of related arts of the various musical eras studied. Such a course would indeed fill the need to add knowledge of this most wonderful art to the general education and culture of the academically talented student.

INSTRUMENTAL MUSIC AND THE CEREBRAL PALSIED CHILD

WALTER H. KNIRR
St. Louis Public Schools

The author has taught instrumental music in the St. Louis public schools for the last seven years. One half day a week is spent teaching instrumental music to children with varied handicaps at the Elias Michael School for orthopedically handicapped. At the Elias Michael School the instrumental music program consists of rhythm band (taught by a classroom teacher), drum class for children with mixed handicaps, and private lessons in piano and brass instruments, taught by the music specialist.

* * * * *

Cerebral Palsy

Cerebral palsy, a complex neuro-muscular disability is described as:

> . . . any abnormal alteration of movement or motor function arising from defect, injury or disease of the nervous tissue contained in the cranial cavity.[1]

Organic and Functional Factors Involved

The outward manifestation of cerebral palsy is evident in the lack of coordinated movements in particular parts of the body as exhibited by the athetoid and spastic types of cerebral palsy. Cruickshank defines athetosis as, ". . . involuntary motions of parts of the body such as, the hands, arms, legs, and mouth". Spasticity as, ". . . stretch reflexes that interfere with directed movement of parts of the body."[2]

The disability is basically the result of organic damage to the brain. The degree of disability varies with each person depending upon the location and extent of the damage and is often intensified by functional and emotional factors.[3]

Purely functional factors are often responsible for non-directed or wasted movements of particular parts of the body. The simple act of raising the hand up from the piano keyboard may result in zig-zag motions that really amount to three or four separate motions. Functional problems arising from cerebral palsy are often caused by a struggle between non-directed muscle groups and directed muscle groups. This struggle for control results in wasted or involuntary motor patterns associated with cerebral palsy. There is a lack of control over gross or large muscle movements such as those of the arms and legs. There is a lack of control over the small or fine muscle groups such as those of the fingers. In many cases there is a lack of coordination between visual perception and motor response and between auditory perception and motor response. This in part accounts for the belief that cerebral palsied children have a defective sense of rhythm and pitch. However, there are other factors that affect these responses as we shall see later.

The child with speech defects s often regarded as mentally rearded. This is not necessarily so. lany cerebral palsied do have short ttention spans and become tense nd fatigued when required to oncentrate for even rather short eriods of time. Many are affected y various degrees of mental reardation, but many on the other and have high I.Q's. The child's ability to communicate with thers, due to the lack of control ver the speech mechanism, often roduces emotional tension, frustraion and fatigue.

The emotional factors that afect the cerebral palsied child's erformance are a cause for real oncern particularly to those of s who are engaged in music herapy. It is probably the one rea in which we can accomplish he most good. It is through an motional conditioning process hat we hope to help the child evelop new motor patterns, paterns the child has never used efore. Dr. Snow says:

> Sometimes it may be a matter of erasing a conditional positioning of the body that is not the result of organic pathology per se, but a conditioned emotional response. It is often difficult to determine if some physical difficulties are organic or functional, and if functional, just where emotional attitudes enter the picture.[4]

Emotional Factors

The emotional factors that ause difficulty are not readily ecognizable. The fingering probems, the tense hand and the inoluntary movements of the cereral palsied pianist may appear to e functional difficulties. Since what seems to be apparent to the eye is the functional problems of the fingers, we accept the problem as such and are apt to overlook the emotional factors. It is difficult to determine to what degree emotional factors affect the child's performance, for emotional factors are manifest through functional difficulties in the end result.

Janet, fourteen years old, started piano lessons with the teacher at the Elias Michael School, St. Louis. Her beginning lessons were learned by rote with the raise-relax-drop technique (see p. 35). The steps involved in this process are as follows:

1. Janet raised her hand over the keyboard, relaxed the arm and then dropped it, striking any note or group of notes (emphasis was on relaxation only, not accuracy).
2. After some relaxation was achieved, Janet, using the same sequence, tried to strike middle C.
3. Next, a three note piece was taught to Janet, then a four note piece, etc.
4. The same pieces were then played in different octaves.

During the first two years most learning was by rote along with some note songs in John Thompson's[5] *Teaching Little Fingers to Play.* Janet's progress was extremely slow. Much of her difficulty was due to extreme rigidity in the fingers and arms. When she made a mistake, these symptoms became more apparent.

At the beginning of her third year, she started in John Thompson's *First Grade Book.*[6] The book is written for two hands and requires independent movements of each hand. For Janet this was still very difficult even at an extremely slow tempo. When Janet started the first lesson in Thompson's book she had problems even with the half and whole notes. At particular places in the piece she would not depress the key hard enough to make an audible sound. Her hand would involuntarily jerk up off the keyboard as though she had touched something hot. In the process of placing the hand on the keyboard again she would make a flurry of uncontrolled movements and then slam it back down again, usually hitting a cluster of tones. The fact that she had made a mistake made her tense. In this brief emotional upset she was not prepared to correct her mistake. The teacher then told her that she was not to stop for any reason, but to play the piece straight through, disregarding any mistakes she might make.

After practicing in this manner for a week she returned and played amazingly well, with even volume throughout, and without wasted motions. Her comment was "Mr. Knirr, I thought I would never be able to play that piece."

Emotional Responses of Cerebral Palsied to Sound

We know from the evidence that has been derived from experiments with cerebral palsied children that emotional factors play an important part in the reactions of these children to sound stimuli.

Dr. Palmer's experiments with athetoids in 1943,[7] and Dr. Schneider's experiments in 1952[8] show that cerebral palsied children react to different types of sound stimuli in different ways. According to Dr. Schneider, spastic children showed degrees of relaxation when exposed to loud, fast, stimulative music. Athetoids on the other hand became tense when so exposed. When spastic athetoid children were exposed to slow soft soothing music the symptoms and results were reversed. The spastics became tense and the athetoids became more relaxed.

The experiments of Dr. Palmer and Dr. Schneider indicate a direct relationship between musical stimuli and emotional responses of the cerebral palsied child. In these experiments, the children were passive listeners and the physical or functional manifestations of tension or relaxation were the result of emotional responses. Whether or not these same emotional responses affect the child when he is actively engaged in playing a musical instrument is not clear.

It is this writer's opinion, based on observations of cerebral palsied instrumentalists, that emotional response of the child playing music is not the result of factors related to sound stimuli, but is the result of a conditioned response resulting from attitudes concerning failure or insecurity. The child has experienced failure time and time again throughout his life. This emotional conditioning creates an attitude that anticipates failure when the child is exposed to any new task. It is this fear of failure that creates tension and prevents him from accomplishing the tasks that are given to him. It is easily understood that many hesitate to study music for fear of adding another failure to their past experiences.

When the cerebral palsied child plays a musical instrument, he is actively engaged in creating the sound and is therefore emotionally prepared for the sound he creates. The sound does not come to him as a surprise as it does to the passive listener.

Emotional responses such as tension and frustration are directly

·lated to the degree of success e child has in any given activity. the child, as a member of the ythm band, can keep his rhythm nchronized with the rhythm of e band he realizes success and n relax. On the other hand, he is not maintaining a 'syn- ronized rhythm with the rest of e band, he realizes he is failing d as a result becomes tense and strated. Dr. Snow has pointed t that "Music reflexly stimulates scular activity and if gross tivity is impossible it brings out tension."[9]

The problem the music teacher ces in teaching instrumental sic to the cerebral palsied child that of getting the child to lax *before* he starts to play. The aching situation itself can create atmosphere of tension or relaxa- n. Individual lessons and group ssons alike have certain ad- ntages and disadvantages in is respect.

From a therapeutic point of ew, the individual lesson is a re advantageous means of deal- g with specific problems than is e group lesson. The individual sson gives the teacher an op- rtunity to observe the child more sely and to give help when eded. On the other hand, the ry nature of the individual les- n tends to focus attention upon e mistakes that the child makes ther than upon the successes he s. When mistakes are made by e child, the situation requires illful handling by the teacher to oid making the child more tense. e success of the individual les- n, to a great extent, depends on teacher-pupil relationship. e teacher must have a sympa- tic understanding of the child's blems.

When cerebral palsied children are given group lessons in instrumental music such as in the rhythm band, the drum class, or in other instrumental groups, mistakes are not so noticeable to the child.

The group situation tends to divert the child's attention away from his own problems since his attention is divided between what he is doing and what the group as a whole is doing. When he does make a mistake, it does not leave a lasting impression as is often the case when children make mistakes during individual lessons.

Rhythmic Responses of the Cerebral Palsied

It has been said that most cerebral palsied children have little or no sense of rhythm. This statement is valid if we evaluate rhythmic sense by the overt rhythmic responses of the child. Most cerebral palsied children do have difficulty playing rhythmic patterns especially at certain tempos. This is to be expected. Past rhythmic experiences have been of a defective nature. This is evident when one watches the cerebral palsied walk or do other routine bodily movements. Most of these children from infancy have not experienced coordinated and synchronized movements as the normal child does.

To say that the cerebral palsied child has no sense of rhythm may not be entirely correct. The cerebral palsied child may have a conscious or sub-conscious "feel" of the rhythm through the muscular tensions and relaxations as normal people supposedly have, but along the way the physical response may become misdirected. In other words, what the child plays may not give a true picture of what he feels.

What appears to be a defective sense of rhythm may be a purely functional problem involving the number of involuntary movements that it takes to perform any given task, such as striking a drum head. The normal child makes two movements, up and down. The cerebral palsied drummer, on the other hand, may make three, four, or more involuntary movements before the drumstick strikes the head. It is these extra, wasted movements that destroy the spacing and tempo of the child's rhythmic attempts.

Tempo has a great effect upon the efficiency of rhythmic performance. The same factors that destroy the spacing of notes in a rhythmic pattern also affect the child's ability to maintain a constant beat. When the child fails to maintain a synchronized beat with that of a rhythmic stimulus, such as the piano, recording, or the rest of the class, he becomes tense, frustrated, and finally fatigued. When the cerebral palsied child becomes tense, certain muscles tend to interfere with directed movement. This creates a situation in which opposing muscles compete for control of the movement. The result of this competition is a kind of "tug of war" between muscle groups that is manifested in involuntary wasted motions.

Each cerebral palsied child has a "right" tempo at which he can perform most efficiently and with the greatest amount of relaxation. The child who uses a number of, wasted or involuntary movements in striking a drum-head will be limited to a slower tempo than the child with less wasted movements. When the tempo is too fast the child is defeated before he begins to play. The result can only be frustration, tension, and fatigue.

When one cerebral palsied drummer was asked to play a rhythm pattern he had been given to practice the previous week, he started playing at 150 M.M. by metronome marking. The tempo, which was much too fast for him, was maintained by the piano player. His attempt to play the rhythmic pattern at this tempo was unsuccessful. As he played, he began to exhibit signs of frustration tension, accompanied by rigidity in the arms and drooling. Finally the boy became tired and stopped. The same boy when playing with the drum class at a tempo of 60 M.M. was able to execute the same rhythmic pattern with a great amount of accuracy, relaxation, and endurance. The tempo that the child chooses is not always a tempo at which he can perform best. Although this may seem a truism, it is an important consideration when deciding upon a tempo for the rhythm band, drum class, or other musical groups where cerebral palsied children are involved.

Margaret Roan[10] has noted the tempo of cerebral palsied musicians when their performance appeared to be most relaxed. The tempo for this particular instance was 44 M.M. Since, at this tempo most of the children are relaxed, 44 M.M. is regarded as a common denominator, or is a tempo which is compatible to all. For some groups this marking may be too slow. The common denominator for any music class composed of cerebral palsied children can only be arrived at through experimentation. If the group is relaxed while they play, then the tempo is right for that group.

hand, the child is given an instrument that is too difficult for him he will become tense and revert back to his "old" motor patterns as soon as he sees he is failing in his efforts.

Conclusion

Instrumental music is a therapeutic tool and is limited in what it can do for the cerebral palsied as are the physical and occupational therapies. For those children who can be interested in music, music might motivate the child to practice and improve himself musically, and consequently, physically. If music therapy can help these children to help themselves in their daily routine of living, then music therapy has accomplished a great deal.

Footnotes

1. Cruickshank, William and Johnson, Orville. *Exceptional Children and Youth.* Prentice Hall, Inc., U.S.A., 1958, p. 430.

2. *Ibid.* pp. 430-431.

3. Nordholm, Harriet. "Music for the Cerebral Palsied Child." *Music Therapy.* Kansas, 1953, p. 91.

4. Snow, William and Fields, Beatrice. "Music as an Adjunct in the Training of Children with Cerebral Palsy." *Occupational Therapy and Rehabilitation.* 1950, 29:3: 147-156, p. 147.

5. Thompson, John. *Teaching Little Fingers to Play.* Willis Music Co., Cincinnati, Ohio.

6. Ibid. *First Grade Book.* Willis Music Co., Cincinnati, Ohio.

7. Palmer, Martin F. "Music as an Aid in Rehabilitating the Cerebral Palsied." *Hospital Music Newsletter.* 3:1:9, September, 1958.

8. Schneider, Erwin A. "The Use of Music with the Brain-damaged Child." *Music Therapy.* Kansas, 1956, p. 96.

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11. Frampton, Merle E. and Gall, Elena D. *Special Education for the Exceptional.* Boston, 1956, III, p. 1961.

12. Weigh, Valley. "Functional Music with Cerebral Palsied Children." *Music Therapy.* Kansas, 1954, p. 136.

RESEARCH AND PROGRESS IN THE ALLIED ARTS

DONALD G. BOWLING AND DR. LEON KAREL
Northeast Missouri State Teachers College

INTRODUCTION

Secondary music education in Missouri took on a new dimension when, in the fall of 1962, the State Department of Education released its new curriculum guide in "The Allied Arts."[1] The publication spells out a comprehensive plan for presenting the whole field of the arts (music, literature, painting, sculpture, architecture, and other combinations of these) in one course.

Designed for the secondary level, the guide should appeal to music and art teachers whose subject areas are so often classified as "activities" rather than academic areas. Using this "Allied Arts" approach, a school might develop the arts as an area of equal academic importance comparable to the sciences and the social studies. The new course could become the matrix for binding the present music, art, and literature courses together.

Preliminary to the writing of the curriculum guide, a research project was undertaken to determine the scope of Allied Arts programs in schools and colleges across the nation. Donald G. Bowling, then a candidate for the Master's Degree at Missouri State Teachers College, Kirksville, made the study as his thesis project.

Before the results of the research can be intelligently presented, it is necessary to explain to some extent just what the Allied Arts are and how they may be taught.

Allied Arts as a Secondary Teaching Field

There are principles which underlie music and painting, drama and sculpture, poetry and architecture, and unite them within the same common area of "arts." These arts, as handled in the curriculum guide, are considered in the light of their subject matter, their function, the materials of which they are made, their organization from raw material into finished works of art, and their stylistic elements. Running along beneath the surface of the course is the insistent demand that the student learn "judgment" in respect to the arts. In short, the Allied Arts aims at the improvement of the students' tastes and critical judgments through increased knowledge and practice in the arts.

THE RESEARCH PROJECT

Background

In order to measure the extent of interest and development of curricula in the Allied Arts, three broad areas of investigation were chosen for the study.[2] These were State Departments of Education in the fifty states, who were asked to state the extent of Allied Arts work in the schools of their respective states; Colleges and Universities, where instructors were questioned as to the type of course offered which included the several arts; and Secondary Schools, whose instructors were known to be teaching some type of Allied Arts course.

Importance of the Problem

Three factors indicated that this problem was of sufficient importance to warrant a full-scale study. First, the American Association of School Administrators, meeting in a national convention in 1959 had said:

> We believe in a well-balanced school curriculum in which music, drama, painting, poetry, sculpture, architecture, and the like are included side by side with other important subjects such as mathematics, history, and science. It is important that pupils, as a part of general education, learn to appreciate, to understand, to create, and to criticize with discrimination those products of the mind, the voice, the hand, and the body which give dignity to the person and exalt the spirit of man.

Following this lead, the Music Educators National Conference had chosen for its biennial national meeting in 1962 the theme: "Music As An Academic Discipline" and finally, the Missouri State Department of Fine Arts was contemplating the formation of a committee to draft the first Allied Arts curriculum guide. With national groups pointing the way and with state people preparing to move, information was needed on which to base future moves.

Views of State Departments of Education

The study opened with a series of letters sent to officials of State Departments of Education in the fifty states. A questionnaire was decided against because of the vague nature of the problem in its early stages, and because the letter would give each official a chance to express his views more freely. The letter asked for any suggestions concerning the possible ramifications of the study and requested names of persons within the state who were teaching this type of course.

Of the fifty letters sent, a total of thirty-six or 72 per cent was returned. The returns were high despite the fact that many states have no supervisor of art or music, much less a supervisor of fine arts education as is found in Missouri. The replies indicated that in general the state departments of education lacked knowledge of experimental work being done in this area in their state. A general lack of knowledge about materials, methods of instruction, and personnel was revealed.

The strong connection between interest in the arts and the organization of the state department of education was seen in the fact that of the states which did not answer the letter, 78.6 per cent had neither art nor music supervisor. Twenty states (55.5 per cent) out of the total number responding stated that they knew of no experimentation within their states. However, 69.4 per cent of those responding indicated an interest in the area and wished to know more about it. The Allied Arts, then, seems to be a new venture in the secondary area, at least insofar as State Departments of Education are concerned.

Views of Instructors in Institutions of Higher Learning

A questionnaire was sent to eighty-five instructors in various colleges and universities throughout the United States. The questionnaire was divided into four parts; Part One was concerned with the name of the individual, his position, the place where he taught, and so on. Part Two asked if a course such as Allied Arts was being offered in that particular school and, if not, whether the instructor felt a need for such a course. Parts Three and Four were concerned with such aspects of the courses taught as their origin, type of material covered, course organization, numbers enrolled, and so on.

Of the eighty-five questionnaires sent, fifty-two instructors (61.2 per cent) responded immediately. Five additional letters were returned instead of questionnaires. Thirty-three people (38.8 per cent) did not reply and a few questionnaires were returned with insufficient information.

Twenty-seven persons in higher education (58.7 per cent) stated their personal belief that there was a need for an Allied Arts course in their particular institution. Four colleges reported having at least one teacher on the staff with sufficient credits in art, music, and/or literature to teach Allied Arts. Fifteen additional schools reported teachers with sufficient interest in the field to undertake preparation for the work. The fact that there are teachers available but not teaching Allied Arts, makes more probable the expansion in the field once the way is shown by textbooks, curriculum guides, and other teaching materials and aids.

The majority of those responding to the questionnaire stated that colleges should prepare secondary teachers in this type of work.

Views of Secondary Teachers

A questionnaire was sent to one hundred twelve secondary school teachers and administrators in the United States. Although the questionnaire was similar in content and organization to that sent to instructors in institutions of higher learning, the response was markedly different.

Seventy-eight people (70.5 per cent) of those to whom the document was sent responded. Six informative letters were also received. Many samples of materials, outlines, units, and teaching guides were sent to the writer. Although the ratio of high schools to colleges in the over-all response was roughly seven to five, the amount of literature and material sent in by the high schools was approximately ten times greater.

Of those responding to the questionnaire, 11.1 per cent reported an Allied Arts type of course in the schools where they taught. Nearly eighty per cent reported that their state provided no curriculum guide or suggested course of study of any kind for Allied Arts. Slightly over half thought that there should be such a guide.

Fifty per cent of the respondents stated that there were teachers sufficiently interested in the arts in their schools to prepare for the new field, should it be offered. Present faculty who are already prepared to teach such a course number 26.6 per cent of those replying to the questionnaire.

As on the college level report, the majority of Allied Arts courses were based on historical survey, material being grouped into "periods" such as Greek, Roman, Medieval, Renaissance, and so on.[3] Three-fourths of those answering thought that colleges should prepare teachers for this field. Respondents proved to be trained in the art field as well as the music field. Seventy-five per cent of those answering expressed interest in co-operating in further research.

SUMMARY

Allied Arts in the Past

Very little is known about Allied Arts as it existed more than five years ago. Only five college teachers said that they had taught such a course for more than five years. On the secondary level, only one teacher so stated.

Perhaps, as a result of its newness, the whole area is beset by semantic difficulties. No authorities agree on the exact terminology of ideas and materials; no teachers agree on the content or materials to be included. The term "Humanities" as used in many places has at least three separate and widely differing meanings.

The new area needs standardization to some degree and it needs texts and guides for those wishing to try it. There should be a central organization interested in its promotion, as there are art, music, and literature associations on a state and nationwide basis.

•

Allied Arts in the Future

From the numbers and quality of responses received to the questionnaires and letters, it seems safe to say that we are on a threshhold of educational change in the teaching of the arts area. Many teachers now in the profession are adding to their present music, art, and literature courses a generous sampling of the other arts in the attempt to provide that integration not now evidenced in our present courses. Furthermore, the prevalent feeling so widely spread in the United States that we are not really raising the standards of taste in our young people – this feeling is slowly taking concrete form in plans to provide a broader arts education. That this type of new arts course should stress the formation of taste and critical standards reflects the statement made by the American Association of School Administrators quoted earlier. All across the land, parents, teachers, and school administrators are awakening to the need for a new approach.

Missouri now steps forward as the leader in offering Allied Arts in secondary schools. Music educators will undoubtedly play a great part in the formation of an "arts area" in the curriculum, an area which will take its rightful place with the social studies, communication skills, and sciences as an "academic discipline."

Footnotes

1. *The Allied Arts; A High School Humanities Guide For Missouri.* State Department of Education, Jefferson City, Mo. 1962. Co-authors; Leon Karel and Alfred Sterling. Consultants; Carl Burkel and Verna Wulfekammer. Chairman, Alfred Bleckschmidt.

2. Donald G. Bowling. *A Survey of Existing Practices and Procedures in the Teaching of the Allied Arts,* unpublished Masters Thesis, 1961. Missouri State Teachers College, Kirksville, Missouri. 99 pages.

3. The Missouri curriculum guide is based on "principles" of art such as balance, contrast, climax, and variation; and on "elements" of the arts such as line, color, shape, tone, texture, volume, and so on.

BEST COP

SURVEY OF MUSICAL STYLE FOR BAND

DONALD ANDERSON
Brentwood Public Schools

The author has been engaged in high school band work for the past nine years. During this time he, along with perhaps a majority of other school band conductors, has come to the realization that, although music education which is strictly performance oriented does not meet the need for a complete music education, the band or orchestra or chorus does offer perhaps the best opportunity to teach about music history, musical style, and the rudiments of music since these components can all be taught in a musical, meaningful context. Furthermore, they are being taught to the most musically interested students in the school.

But the band conductors as a whole have been too preoccupied in planning concerts, etc. to concern themselves sufficiently with music history and style and often became very "rusty" in these areas. Also, as a result of this lack of interest, publishers have been slow in bringing out good material of a fairly easy calibre from the earlier periods, i.e. Renaissance and Baroque.

This paper and the scores used in the original study represent a small attempt to fill this need and to point in the direction of the kind of material which we most need, and hopefully, will be published as conductors make their wants known.

* * * * *

Music used in the Survey of Musical Style for Band and Arranged by the Author

I. Polyphonic
  Kyrie I, by Guillaume Dufay
II. Baroque
  Sonata Piano Forte, by Giovanni Gabrielli
  Prelude and Fugue in G Minor, by J. S. Bach
III. Classic Period
  Octette in F Major for Winds, by Joseph Haydn
IV. Romantic Period
  Prelude No. I, op. 28, No. 7, by Frederic Chopin
  Prelude No. II, op, 28, No. 20, by Frederic Chopin
V. Modern
  Prelude in E Flat Minor, No.14, by Dimitri Shostakovitch

Musical Style

An awareness of musical style is a sign of an intelligent and experienced listener. Listening to a composition for the first time on the basis of an awareness of style, placing the composition in terms of historical period, composer or some other frame of reference, is one of the most gratifying basis for musical enjoyment.

To the Band Student: The purpose of the survey is to acquaint you with the different styles in music. We have taken musical examples from the following main periods in music.

Polyphonic 1000-1600
Baroque 1600-1750

AVAILABLE

Classic 1750-1820
Romantic 1820-1900
Modern 1900

We will approach musical styles by using the tools that a composer uses in creating a composition.

Composers' Tools

Rhythm: Everything related to the duration of musical sounds, including emphasis and frequency of occurance.

Melody: A succession of musical tones which comprise a musical idea.

Harmony: Musical tones sounded simultaneously.

Form: The plan of construction; the way the music is put together.

Color: The different types or combination of voices or instruments used.

Texture: The thickness or thinness of voices occurring either homophonically or polyphonically, i.e., horizontally or vertically.

Dynamics: Loudness or softness of the music.

This should provide you with a foundation that will make all the music you play more interesting and meaningful. After playing and discussing the different periods and characteristics of the periods, use the chart in the back as a reference for any music played.

Polyphonic Period
1000-1600

Rhythm:

a. In the early part of the polyphonic period no regular meter was used or bar lines that we use today.

b. You will notice the independence of each part as it is played. Also note the interweaving of independent rhythms.

c. Rhythmical accentuation of each part is free, but the composition as a whole conforms to a fixed metrical scheme in which strong and weak accents succeed one another in predetermined order.

Melody:

a. Melodic lines were well proportioned, with upward movement, balanced by descent.

b. Melodic skips, major and minor thirds, perfect 4ths and 5ths, octaves (minor 6th ascending only) were used.

c. Church modes were used but by alteration and breakdown the primary ones left, in the latter part of the period, were major and minor.

d. Melodies were written for voices, but instruments played the same parts.

Harmony: In the early polyphonic period, harmony was the momentary result of interval relationship between voices, progressing horizontally.

Form: Standard polyphonic forms were used, such as the motet, the mass, and the madrigal.

Color: There was little interest in differentiation between vocal and instrumental color.

Texture: Methods used were polyphonic and chordal (strands moving simultaneously in homophony.)

Dynamics: Few dynamic changes were indicated in the scores.

Suggestions for Rehearsals

a. Play each part separately. (I, II, III, IV)
b. Show the interval skips.
c. Show where momentary harmony occurs.

Some Important Composers of the Period

a. Guillaume Dufay
b. Josquin Des Pres
c. Orlando Di Lasso
d. Giovanni De Palestrina

Baroque Music
1600-1750

Some Important Composers of the Period

a. J. S. Bach
b. G. F. Handel
c. G. Gabrieli
d. A. Corelli
e. H. Purcell

Rhythm: Regularity of beat

Melody:

a. Range of melodies increased
b. Establishment of tonality
c. Major and minor mode

Harmony:

a. More organized development of tonal harmony using 7th and 9th chords (major and minor)

b. Development of counterpoint.

c. New emphasis on homophony, but does not replace polyphony.

Form:

a. Examples: Baroque sonata, concerto grosso, cantata, opera.

b. Basso continuo (bass part with numerals below the notes to indicate harmony.)

c. Polophonic music at its peak at the end of this period.

d. Increase in importance of homophony.

Color: Instrumental color interest in specific instrumental harmony.

Texture:

a. Perfection of the fugue.
b. Homophony (see above)
c. Thorough bass technique.

Dynamics: Terraced dynamics, either forte or piano.

Suggestions for Rehearsals:
Point out:

a. A period of dramatic expression, more spectacular and with more grandeur than polyphonic period.

b. An era of ecstasy and exhuberance of dynamics, tensions, and sweeping gestures.

c. Music of the period developed in two directions, one homophony and the other polyphony, (Bach wrote in both styles.)

d. Instrumental music of the early Baroque period as typified by Gabrieli through his use of dynamic contrast between two groups, and combining for dynamic climaxes.

e. Culmination of Baroque, Bach and Handel.

Classic Period
1750-1810

Rhythm: Regularity of rhythm; simple rhythms.

Melody:

a. Mainly diatonic with chromaticism, becoming more important in later part of period.

b. Simple light melody.

Harmony:

a. A period of harmonic revolution, change from polyphonic to homophonic.

b. Diatonic harmony, with chromaticism.

Form:

a. Sonata allegro form, e.g., concerto, symphony, etc.

b. Form conscious—larger sectional structures that are simple and clear.

Color:

a. Standardization of orchestra.

b. Piano used as important solo and ensemble instrument.

Texture: Homophony melodies with chordal support.

Dynamics:

a. Greater use of dynamic markings.

b. Terraced dynamics and crescendo and dimuendo both used.

Suggestions for Rehearsals:

a. Play melody alone, pointing out lightness and brevity of melody.

b. Music is generally restrained, impersonal and objective.

c. This period gives a feeling of stability, clarity, balance, self reliance, grace, refinement, and elegance.

d. Notice the composers' use of relatively simple diatonic harmony.

e. Notice the use of terraced dynamics at measures 9-11, crescendo at measure 3.

f. Notice the diatonic use of notes at measure 5.

g. Rhythm of the piece is triple.

Romantic Period
1820-1900

Rhythm: More complex rhythms being used.

Melody:

a. Flowing melodies, strong emotions in music, more personal.

b. Chromatic intervals.

Harmony: Still tonal (key centered) but also becoming more chromatic.

Form:

a. Longer forms in symphony and sonata but also many short piano pieces (as illustrated in enclosed music, Prelude No. II.).

b. Development of the symphonic tone poem.

c. Less rigid form than preceding period.

d. Program music.

Color:

a. Composers preoccupied with color effects.

b. Change of color by use of new instruments.

Texture:

a. Prevalence of homophony.

b. Sonorities—rich and full.

Dynamics:

a. Varied dynamics

b. Sweeping effects.

Suggestions for Rehearsals:

Point out:

a. Enrichment of music by poetry, fiction, philosophy, and painting of the Romantic period.

b. Use of flowing melody with much emotion in Prelude No. II.

c. Full color of the chords in Prelude No. II.

d. Melody with rich chordal accompaniment.

e. All dynamics used.

Some Important Composers of the Period

a. Richard Wagner
b. Franz Liszt
c. Frederick Chopin
d. Johannes Brahms
e. Franz Schubert

Modern Period
1900-

Rhythm:

a. More complex rhythm patterns and syncopation used.

b. Mixed meters, exotic rhythms, experiments in metric schemes.

Melody:

a. Wide range.
b. Serial techniques
c. Microtones
d. Modes

Harmony:

a. Dissonance is greater in melodic intervals.

b. Atonality and modality, polytonality, seven-tone scale, microtone, multi-tonality, chords built on 4ths and 2nds.

Form:

a. Many of the classic forms being used.

b. Renewed interest in polyphonic texture.

c. Experimentation with new forms.

Color:

a. Expanded technique being used in all instruments.

b. New electronic instruments.

Texture:

a. Much experimentation.

b. Horizontal and vertical direction.

c. Monophonic, polyphonic, homophonic, non-melodic.

d. Thin and clear sonorities.

Dynamics: All dynamic markings used, extreme effects.

Suggestions for Rebearsals:

Point out:

a. Change in time at measure 24, 3/4 to 5/4.

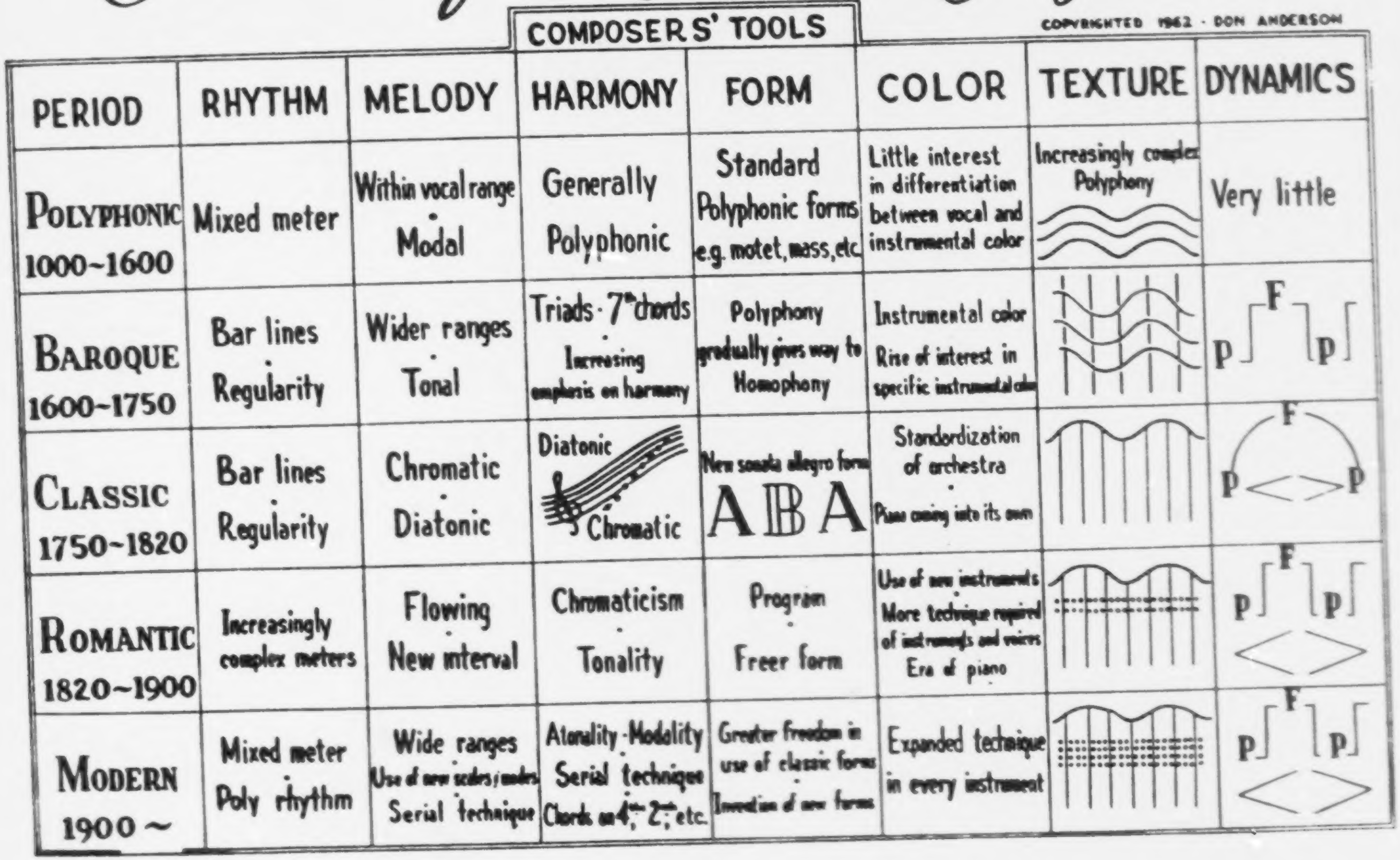
b. Wide range of melody, low in beginning to high flute at measure 24.

c. Syncopation at measure 26.

Some Important Composers of the Period

a. Vincent Persichetti
b. Leonard Bernstein
c. Dimitri Kabalevesky
d. Igor F. Stravinsky
e. Anton Von Webern
f. Dimitri Shostakovich
g. Darius Milhaud
h. Paul Hindemith

Chart of Musical Styles



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	COMPOSERS' TOOLS						
PERIOD	RHYTHM	MELODY	HARMONY	FORM	COLOR	TEXTURE	DYNAMICS
POLYPHONIC 1000~1600	Mixed meter	Within vocal range • Modal	Generally Polyphonic	Standard Polyphonic forms e.g. motet, mass, etc	Little interest in differentiation between vocal and instrumental color	Increasingly complex Polyphony	Very little
BAROQUE 1600~1750	Bar lines • Regularity	Wider ranges • Tonal	Triads · 7th chords • Increasing emphasis on harmony	Polyphony gradually gives way to Homophony	Instrumental color • Rise of interest in specific instrumental color		P F P
CLASSIC 1750~1820	Bar lines • Regularity	Chromatic • Diatonic	Diatonic Chromatic	New sonata allegro form ABA	Standardization of orchestra • Piano coming into its own		F P < > P
ROMANTIC 1820~1900	Increasingly complex meters	Flowing • New interval	Chromaticism • Tonality	Program • Freer form	Use of new instruments • More technique required of instruments and voices Era of piano		P F P < >
MODERN 1900 ~	Mixed meter • Poly rhythm	Wide ranges • Use of new scales; modes • Serial technique	Atonality · Modality • Serial technique • Chords on 4ths, 2nds, etc.	Greater freedom in use of classic forms • Invention of new forms	Expanded technique • in every instrument		P F P < >

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PRINCIPAL INSTRUMENTAL FORMS OF THE BAROQUE ERA

WAYNE MORIE
Clayton Public Schools

The following article in an excerpt from a paper written by a Junior in Clayton, Missouri High School and solo clarinetist in the Clayton high school band and orchestra. It is published here as an example of the good which can come out of interdepartmental co-operation and as proof that a high school student can do writing of a rather scholarly nature. Morrie's English teacher was Blandford Jennings and his music teacher, Edward Bayer.

The entire paper runs to approximately twenty-five pages. The complete table of contents and the bibliography are included to indicate the scope of the paper.

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    B. Form
    C. Interpolated dances
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Influencing Reforms

The opening of the seventeenth century brought a great change in musical thought in the method, character, and purpose of music. There was a general overthrow of the older counterpoint and a substitute of a simpler kind of music.

This simpler music was at first in the form of a recitation rather than a melody, and was sung by a single voice throughout and accompanied by instruments; or in the case of purely instrumental music, a simple tune accompanied by chords.

There was a change to composing the melody in a high voice instead of the old "cantus firmus" method of composing from the bass. Purcell, a well known composer of the seventeenth century, says in a revision of Playford's *Introduction to the Skill of Musick:* "Formerly they used to compose from the bass, but modern authors compose to the treble when they make counterpoint or basses to tunes or songs."[1]

In this era, the harmonic concept versus the contrapuntal concepts (contrapuntal music being two lines of melody going in different directions, and harmonic music being the concept of writing melody with accompaniment by chords) were widely disputed and studied. These studies consequently led to the modern concept of key relations.

The concept of key relations was needed to bind the music together into some kind of unity. The concept of the key brought rhetorical unity to music. The sense of key was relied on by composers for structural features such as modulation to close keys for expression, and for vivid contrasts, modulation to the remoter keys. Monteverdi used modulation to emphasize a word or phrase that needed special stress. The idea of modulation was principally the factor in bringing unity to music which was badly needed at the time. "A musical discourse carried on by instruments alone cannot hang together unless some principle of rhetorical cohesion can be made to operate throughout."[1]

The idea of key and modulation was accepted by the end of the seventeenth century and was a main factor in construction of musical forms, but it had to overcome certain obstacles on the way to popularity.

The biggest obstacle for modulation was found in the Pythagorean scale which was in use during this period of time. A look at the structure of this scale will serve to show why modulation was impractical.

In the Pythagorean scale the major third vibration ratio is 81:64.

The oversharp third was slightly flatted, becoming 5:4 which gave the C-E-G triad very smooth concord. But the other major triads (G-B-D, F-A-C) must be made to conform and the Pythagorean scale must be altered. If the major third C-E is tuned at 5:4 while major 2nd C-D is tuned to the old 9:8 then major 2nd D-E will be smaller (by $\frac{81}{80}$) than major C-D. To make the two major triads (G-B-D, F-A-C) correspond with the fundamental triad, the thirds G-B, F-A must be made to contain a major (greater) tone (9:8) and a minor (lesser) (10:9) tone. Both B and A must be tuned 5:4 respectively to G and F.

The three triads are exactly alike. The minor triad D-F-A differs from minor triads E-G-B and A-C-E in that the minor third D-F contains a minor tone plus a half-tone while the thirds E-G and A-C each contain a major tone plus a half tone. A C major scale thus would be: (Major tone-9/8) (Minor tone-10/9) (half tone equals 16/15)

$\overset{C}{1} \times 9/8 = \overset{D}{9/8} \times 10/9 = \overset{E}{5/4} \times 16/5 =$

$\overset{F}{4/3} \times 9/8 = \overset{G}{3/2} \times 10/9$

$\overset{A}{5/3} \times 9/8 = \overset{B}{15/8} \times 16/5 = \overset{C}{2}$

This arrangement is all right for the fundamental diatonic scale but it is impractical for a modulated scale. For any modulation, half steps must be introduced between notes which are a whole step apart. These whole steps, however, are not alike. Some are major and some are minor. F-sharp and G-flat are not identical. F-flat and C-flat are not equal to E and B respectively. So you can see, if all notes were on the keyboard it would be awkward and cumbersome beyond practicality.

Another scale that was experimented with was the mean-tone scale. In the mean-tone scale, the major thirds were left at 5:4 by evening the distance between major tone (9:8) and minor tone (10:9). Half steps E-F, B-C (16:5) are larger than half-steps which would divide major tone or a minor tone into equal intervals. The major third E-flat-G would be larger than a major third C-E or F-A. The major triads, therefore, would have different values. Only keys having a few sharps or flats could be made tolerable.

The obstacle in the accepted tuning of the scale was finally removed; the result was the equal-temperament scale. In this scale the octave was divided into twelve equal half steps, each half step being equal to the twelfth root of two. The fifths are tuned slightly flat and the fourths slightly sharp. Andreas Werckmeister, who wrote *Musikalishe Temperatur* in 1691, formulated this twelve-tone scale.[1] This new tuning was applied to clavichord and harpsichord rather than the organ. Even Bach, who wrote *The Well Tempered Clavichord* especially for this scale, did not use it on the organ.[2]

These new reforms helped the orchestra rise in popularity as it became systematic in its standardized instrumentation. The orchestra was for a time ". . . a miscellaneous collection of instruments, varying with the fancy of the composer.[1] Many courts had large bodies of musicians while small principalities had small orchestras or civic bands for special occasions.

Claudio Monteverdi was the first to attempt systematic selection, arrangement, and balancing of instruments available to his use.[3] His orchestra consisted of two wood organs, one regal organ with reed stops, two gravicembalos, two viol contrabasses, ten arm viols, one double-harp, two small French violins, two lutes, three leg viols (cellos), four trombones, two cornets, three trumpets with mutes, one small flute and trumpet. The above list should be noted for the important emphasis put on string instruments.

As the violin became more popular, it gradually replaced the viol family as the principal instrument of the orchestra. Stradavari and Gauneri helped bring this about by their fine craftsmanship in making them.

Johann Sebastian Bach, probably the most famous of the baroque composers, did much to help standardize the orchestra also. His small orchestra was a "chamber" group, predominently of strings, large and small, of the violin family. He had flutes, oboes, and sometimes a bassoon, high trumpets, sometimes a horn or two and sometimes he wrote for kettle drums. A keyboard instrument, a harpsichord or organ, played from the bass line of the score, which indicated the harmonies to be played. The player of the keyboard instrument or first violin was a conductor of sorts. The art of the modern conductor was still unknown at that time. Progress had been made, though; instruments improved as did the technique of the performers. Effective combinations of instruments were worked out with a tendency to standardize the central string section.

All of these factors: changes in composition, establishment of the sense of key relationship, the equal-temperament scale, and development of a standard orchestra greatly influenced the forms of the Baroque era. The most popular of these forms which I will discuss, are the dance suite, the sonata forms, the fugue, and the concerto grosso.

Footnotes

1. Donald N. Ferguson, *A History of Musical Thought*, p. 273. p. 276.

2. Douglas Moore, *From the Madrigal to Modern Music*, p. 40.

3. David E. Berg, *Fundamentals of Musical Art*, p. 1.

TRENDS IN PIANO CLASS INSTRUCTION
1815 TO 1962

WILLIAM H. RICHARDS
University of Kansas City

This article is based on a dissertation submitted to the Conservatory of Music, University of Kansas City, as partial fulfillment of the degree of Doctor of Musical Arts.

Piano classes, composed of more than one student studying simultaneously with one teacher, are a means of instruction involving all areas of piano study. They need not be limited to single areas as master, repertoire and sight-reading classes.

A popular belief is that group piano teaching originated about 1915.[1] In 1929 leaders felt that the roots were embedded too deeply in the past to be revealed.[2] Recent study has pushed back the frontiers more than one hundred years.

The earliest known example of piano class instruction was located in Dublin in 1815.[3] Johann B. Logier established several academies offering group instruction for students and training in his procedures for teachers.[4] A possible heritage was provided the United States because two piano teachers from Philadelphia and New York[5] studied with Logier.

There is evidence of group instruction in some "female schools" of the South in 1860.[6,7] In 1890 Calvin B. Cady, Professor of Music, University of Michigan, enunciated three principles that approximate the contemporary philosophy: development of musical ideas, development of the power to express these ideas, and musical experience.[8] He felt that only in small groups of two or three could all three be achieved. By 1915 classes were introduced into the public schools. In 1929 the demand soared and the first national survey of piano classes was conducted by the National Bureau for the Advancement of Music.[9] The results indicated that there were 557 cities definitely reporting piano classes in operation and 3,779 cities requesting information regarding piano classes from the N.B.A.M. The trend has been one of continuous refinement, especially since 1930.

The beginning piano class has been the most popular level. The number of students per beginning group has gradually diminished from thirty in 1815 to six in 1962. Smaller groups insure more musicianly results.

Intermediate and advanced classes existed sporadically from 1815 and have become more in demand since 1940. Enrollment for these levels has been limited to three or four students from 1890.

During the twentieth century, when the demand for piano class teachers exceeded the availability, others were drafted into the movement, classroom and private piano teachers primarily. Generally, their results proved to be inferior to those of the trained piano class teacher.

Througnout its history, class piano has received much adverse criticism. Close analysis reveals that such criticisms were generally incurred by an omission of at least one factor (see under "Conclusions").

Teacher training existed in 1815. One hundred years later, music supervisors offered in-service training, emphasizing group *procedures for private piano teachers* and piano pedagogy for the classroom teachers. By 1929 group procedures were included in many university piano courses. At the present time, a curious anomaly lies in the fact that a number of universities offer piano classes as part of their applied piano program, but do not include group procedures in the pedagogy courses. Probably these courses are taught by private piano teachers without experience in group procedures.

The roles of the student and teacher have had significant changes. In the contemporary piano class the student has the opportunity to act and react in a variety of active roles: performer, listener, and contributor. Active listening results in criticisms of the performer and the ability to communicate the suggestions. The contributor brings specific data to the attention of the group. The performer has the opportunity to receive ideas from not only the teacher but also his peers. Previous to the contemporary piano class period, the capacity of the student was one of performer and passive listener. As the role of the student altered, so did that of the teacher, a concomitant relationship. Necessarily, the role of of the teacher becomes that of a guide.

Conclusions

Investigation indicates that the piano class movement has been one of gradual refinement. It has revealed that group teaching can be an effective and musicianly means of instruction, if certain factors are observed:

> The teacher is musicianly trained and educationally equipped in piano materials and class procedures and has had experience of teaching groups with supervision.
>
> The groups are small enough so that each member may participate actively as a listener, performer and contributor.
>
> There is ample time allotted for opportunities to exchange experiences, explore problems, direct the next step in learning, appraise what has been done and suggest further procedures.
>
> The facilities are adequate for group piano expression at all levels of attainment.
>
> The students are periodically reclassified into more homogeneous classes. (If a challenging peer group is not available, the student is referred to a private teacher.)

Prognosis

There has been a gradual tendency for beginning piano instruction to be taught in groups, even at the university level. Increasingly, the intermediate piano student is taught in groups. The near future trend may well be to teach all non-music majors and all music education majors, regardless of the major instrument, primarily in groups. The time will probably be more remote before the piano major will be taught only in groups. Aspects of group piano instruction will continue to permate the texture of private teaching.

There should be a distinct place for the private piano teacher as well as the group teacher. Although most students are capable of the challenging atmosphere of the piano class, not all are, nor are there always peer groups available. These students should not be mis-cast into inferior or superior groups, but referred to the private teacher.

Group piano teaching is not new. The movement has an international tradition of at least one hundred forty-seven years and a national heritage of progress and refinement of at least one hundred two years.

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3. Johann B. Logier, *An Authentic Account of the Examination of Pupils Instructed in the New System of Music Education* (London: R. Hunter, 1818), p. 1.

4. *Ibid*, p. 2.

5. Johann B. Logier, *A Refutation of the Fallacies and Mispresentations Contained in a Pamphlet Entitled, "A New System of Music Education"* (London: R. Hunter, 1818), p. 52.

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7. E. L. J., "Letters to the Editor", *The Etude*, III (December, 1860), p. 285.

8. Calvin B. Cady, "Class Teaching", *The Etude*, VII (May, 1889), p. 25.

9. C. M. Tremaine and Ella M. Ahearn, *National Survey of Piano Classes in Operation* (New York: National Bureau for the Advancement of Music, 1929), p. 9.

MUSICAL TASTE AS INDICATED BY RECORDS OWNED BY COLLEGE STUDENTS WITH VARYING HIGH SCHOOL MUSIC EXPERIENCES

DR. THOMAS E. BIRCH
Central Methodist College, Fayette

The author has been at Central Methodist College, Fayette, Missouri since 1952 where he is Professor of Brass and Director of Bands in the Swinney Conservatory of Music. He holds a B.A. from Central College and a M.Ed. and Ed.D. from Missouri University.

* * * * *

ABSTRACT

Purpose of the Study

It was the purpose of this study to compare the musical taste and musical discrimination of high school graduates who have participated at least three years in the secondary school music program, with those graduates who participated less than three years in the music program, to determine if there is a difference in the musical taste and musical discrimination of the two groups.

Method of Research

In this study, the phonograph records owned by the student were used to determine his musical taste and musical discrimination. It is assumed that people generally spend their money to buy the things in which they have a genuine interest, therefore, it is to be assumed that the record that the student has freely chosen and purchased for his own pleasure, reflect his musical taste and discrimination to an acceptably accurate degree.

The information in this study was collected by means of a check list that was devised to show the amount and kinds of musical experience of, and the kinds of phonograph records owned by, each of the subjects involved. The check lists were completed through personal interviews with each member of the student body at Central Methodist College, Fayette, Missouri, during the fall semester 1961.

Summary

1. Significantly more of the students having at least three years of high school music experience owned records of serious music than did those students with less than three years of high school music.

2. Among the students with more than three years of high school music, more women owned Rhythm and Blues records and more men owned Jazz records.

3. Among the students with less than three years of high school music, significantly more women than men owned records of serious music.

4. Among the students with three or more years of high school music, more of the students who had vocal experience owned records of serious music than did the students with only instrumental experience.

5. In this same category of students, significantly fewer students with both vocal and instrumental experience owned records of serious music than did the students with only vocal experience.

6. There was no real difference when the students with instrumental experience and those with both vocal and instrumental experience were compared.

7. Students having at least three years of high school music and students having at least three years of private music lessons when compared showed no real difference in any category.

8. Significantly more students with both three years of high school music and private lessons owned records of serious music than did those students with only three years of high school music or those students with only private lessons.

9. Significantly fewer students who had less than three years of high school music and less than three years of private study owned records of serious music than did those students with only three years of high school music or those students with only three years of private study.

Conclusions

The following conclusions specifically apply to the graduates of Missouri high schools who have attended, or are attending, college.

1. Students who have participated in the high school music program for a minimum of three years have better musical taste and discrimination than the students who have participated in the high school music program for less than three years.

2. Students having high school vocal experience have better musical taste and discrimination than do the students having high school instrumental experience.

3. Women students have a broader musical taste than do men students.

4. A greater percentage of students with high school music experience own records than do those students who have no high school music experience.

5. There is no real difference in the musical taste of students having only private lessons and students having only high school music, but the combination of both high school music and private lessons produces better musical taste and discrimination than either high school music alone, or private lessons alone.

6. Students who have less than three years of high school music and/or private lessons are the principal supporters of the music of the Rhythm and Blues type.

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A STUDY IN IMPROVING THE INTERPRETATION OF SELECTED ARIAS FROM STANDARD OPERAS

PEARL WHITE WALKER
Lindenwood College, St. Charles

Digest

The purpose of this project is to provide musicians with information needed for performing selected arias from standard operas. It is intended to encourage appreciation and interpretation of opera through the study of the aria.

The project is limited to repertory from Gluck to Menotti. Sixty arias for both male and female voices from twenty-eight operas by fourteen composers are developed for study. The information is both specific and general: specific as it applies to the particular aria, and general as it aids in learning new material.

Procedure

The material is organized as follows:

1. There is a discussion of arias from six Italian, five French, three German composers, and one opera in English.
2. Additional material includes a brief biographical sketch of the composer, a summary of the composer's most obvious characteristics as illustrated in the music, the origin of the opera, the context of the aria in the story, literal translations of the text (both in the body of the project and typed on the actual sheet music in Appendix D), and a brief analysis of the music as it relates to performance with explanatory notes pertinent to interpretation.
3. There are three appendices listing the arias as follows:
    - a. By composer and language
    - b. By type of voice
    - c. By alphabetical order
4. Appendix D consists of the arias in sheet music form on which are typed the literal translations of the text.
5. Appendix E lists the arias available on recordings.
6. All music can be secured in separate copy publications.

Need for the Study

No books are available which explain traditional interpretations and acting. If the teacher can quickly suggest the background, thus stimulating the pupil to pursue independent study, more time in the lesson can be devoted to recreating the style and interpretation the composer intended.

Conclusions

Educational, musical, and social values are attained from studying opera in college. It is hoped the following aims will be achieved:

1. Since the voice is only an instrument upon which music is played, musicianship and a knowledge of related fields of history and language are most important in interpretation.
2. Educators must search for the gifted pupil, and federal subsidies must provide the opportunity for the long years of study requisite for him to become the authority he must be if he is to lead the artistic world to greater heights.

A METHOD OF TEACHING ELEMENTARY VOCAL MUSIC READING BASED ON PRINCIPLES OF FIXED PITCH

SR. ALPHONSE MARIE GEDERS, C.PP.S.
St. Mary's Junior College, O'Fallon

The method explained in these pages had been developed by the late Dom Ermin Vitry, O.S.B. who successfully adapted the teaching procedures of Maurice Chevais to this system of ear training and music reading. Dom Vitry had been professor of music at St. Mary's Junior College, O'Fallon, Missouri, over 25 years (1934-1960) and it has been a rewarding experience for his pupils to have experimented successfully with this method in the elementary schools conducted by the Sisters of the Most Precious Blood of O'Fallon, Missouri.

The "fixed do" system of reading music has not been used to a great extent in the United States, but experience has convinced this writer that it has psychologically sound advantages to offer, e.g. it stresses the hearing of tones and it substitutes a single standard of naming notes, thus removing the confusion linked with many names attached to the same pitch.

Preparatory Steps

Fundamental to this elementary singing course is the concept of music reading-readiness and informal reading. Among the many abilities to be acquired in the period of reading-readiness, the correct use of the voice in singing and an alert and spontaneous response to tone and rhythm deserve particular attention. These basic abilities can be best cared for by a long period of rote singing.

Primary musical experiences are a form of aural training and this training is a most significant activity in music study. Indeed, as Gehrkens points out:

> The subject of ear training is the most important activity included in music study, and my feeling is that it should be strongly emphasized from the first lesson in the first grade through to the very end of the pupil's career as a music student.[1]

This ear training must be extended to include attentive listening to pitch, tone quality, rhythm, correct diction, phrasing and expression – all necessary elements in the beautiful singing of rote songs.

Informal Reading

A well-executed program of rote singing will lead to a felt need for simple easy note reading. This need will be satisfied, at this time, by a process which the writer terms informal reading. This informal acquaintance with the musical score is ordinarily begun sometime in the second primary. The child, with book in hand, is encouraged to follow the direction of the notes while learning a new song. In order to insure the necessary control of the eye at the beginning of this new activity, the child points to the notes while singing them on a neutral syllable (noo, noh), *not* on the sol-fa syllables. Informal reading continues to be taught simultaneously with rote singing until both are eventually superseded in the intermediate grades by formal music reading.

Teaching Aural and Visual Recognition of Tones in the Key of Do

The feeling of need supplies the motivation necessary for the introduction of the next phase of the music program – formal training in the aural and visual recognition of tones. Since this method is concerned with teaching vocal music reading, its pre-determined end is the acquisition of reading skills. This learning process is normally introduced in the third primary. Emphasis is placed on the training of the auditory sense since music study seems to require that this sense be given particular consideration.

The Dalcroze method of teaching eurhythmics stresses the importance of simultaneous and constant correlation between mental activity and bodily movement.[2] The method proposed here adopts this principle in correlating the aural perception of pitch with mimetic gestures in the initial stages of the aural training.

Teaching Procedures

According to Dom Vitry,[3] three procedures are involved in the teaching of the aural and visual recognition of tones:

1. Mimetic gestures – a system of locating tones on the body in such a way that the gestures correspond approximately to the ascending and descending appearance of the notes on the staff. The gestures are made by means of the hand (either right or left) which is held in a horizontal position, palm downward. See Figure 1. This combination of sensory and motor experiences is believed by the writer to secure a response of greater educational value. For the child, the physical gestures act as a check on the aural recognition of tones. The gestures enable the teacher to see at a glance the rapidity of the pupil's aural response.

Ladder of tones – the large ladder of tones is an approximate duplicate of the mimetic gestures and is the first transfer to the eye of what was heard and acted. See Figure 2. Since the relative size of the intervals is accurately pictured on the ladder, it is a more exact representation of tone relationships than the staff is.

3. Staff – the transfer to the five-line staff is the final step in the aural-visual training procedure.

In order to provide for a complete experience of all the tone relationships within the scale of C, the following order of presentation is adopted as the most musical and practical:

1. The tonic chord, Do-Mi-Sol-Do.

2. The intermediate tones, Re, Fa, La, Si, in relation to the tonic chord. The main exercise of this comprehensive training is called dictation. The teacher indicates or provides the tonal material in one of the following ways and the class responds in the manner designated by the teacher.

Forms of Dictation and Response:

Teacher
a. gestures (Do-Mi-Sol)
b. vocalizes
c. points to ladder
d. points to staff

Class

a. solmizates or vocalizes with or without gestures
b. solmizates or gestures or solmizates and gestures
c. solmizates or vocalizes with or without gestures
d. solmizates or vocalizes with or without gestures.

Thus, the teacher has a choice of four different ways of dictating tonal groups and the class may respond in five different ways. This variety of procedures is a safeguard against monotony and meaningless repetition.

The words, "Let us sing," are associated with the ascending tones of the major triad, Do-Mi-Sol. "Yes, we sing" are associated with the descending tones, Sol-Mi-Do. These words will later assist in the learning of all the other major triads. After the aural and visual response to the three tones of the basic triad have been secured, the octave tone, Do, is added to the three basic tones and mastered by the same procedure.

The intermediate tones, Re, and Fa, are introduced as passing tones in the scale progression, Do-Re-Mi-Fa-Sol. The intermediate tones strengthen the melodic meaning of the basic chord, provided that the dictated tone-groups repose preferably on one of the tones of the basic chord. At this stage, only skips between tones of the basic chord are employed in the exercises. The tones, La and Si, are then taught in the progression, Sol-La-Si-Do, following the same procedures.

The other major chords of the scale are then taught in their relation to the tonic chord. See Figure 3.

The dominant chord, Sol-Si-Re, is learned thus: the children sing Do-Mi-Sol, on the words, "Let us sing;" sustaining the tone, Sol, they are instructed to think and sing another "Let us Sing" beginning on the tone, Sol. After establishing the sound of this new triad by means of the words, "Let us sing" and "Yes, we sing", the syllable names are substituted for the words and the new intervals are made secure; they are related to the tonic of the scale by concluding the exercises with a final Do, thus: Sol-Si-Re-Do. The subdominant chord, Fa-La-Do, is learned by descending from the octave Do, singing the words: "Yes, we sing" which are always associated with a descending major triad.

The minor chord, La-Do-Mi, is made up of elements already learned and is taught thus: The children sing the well-known chord, Do-Mi-Sol-Do. From the octave Do, they are instructed to skip to the Mi above, return to Do, skip from Do to La, and return to the tonic tone by a concluding Si-Do; the progression is therefore; Do-Mi-Do-La-Si-Do. The somber chord, Re-Fa-La, is related to the tonic chord thus: Do-Mi-Sol-La-Fa-Re-Do. Usually, a whole year is devoted to mastering all the above tonal relationships, aurally and visually.

Opportunity is given for the children to use newly acquired skills in the reading of songs or parts of songs in which they can be reasonably sure of success, thus building up their confidence in their own ability and motivating them for continued initiative in attempting more complicated reading problems.

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Introducing Other Keys

After the techniques of reading in the key of Do have been well established, the reading program is enriched by the study of the other keys. By way of introduction, reference is made to the arrangement of large and small steps on the ladder of tones. An understanding of the major scale pattern – two large steps, one small step, three large steps and one small step – is the basic knowledge required for the construction of the other major scales. The order of introducing other scales is left to the option of the teacher. If the teacher decides to teach the scale of Re, he refers to the original ladder of tones in order to have the children visualize the adjustments that must be made to follow the pattern of large and small steps when the scale is begun on Re. The necessity of raising Fa and Do is readily apparent.

The three procedures (gestures, ladder, staff) are now applied to the teaching of the new scale. Modifications in the gestures are shown in Figure 4. The hand is held in a vertical position, with the palm forward, to indicate a raised tone, a sharp. A closed hand indicates a lowered tone, a flat.

The same ladder of tones may be used in teaching all the scales. The raised tones are indicated by pointing higher than the original level of the tone on the chart. The lowered tones are indicated by pointing lower. If each new scale is notated on a separate chart, the raised tones are colored red, the lowered tones, blue. See Figure 5.

Tonal material is presented in the same order as that of the key of Do. The basic chord of the new key, for example, Re-Fa-La-Re, is dictated in a series of tone groups until mastered in all the forms of dictation and response. Then the intermediate tones and related chords (dominant, subdominant and minor) are introduced in the same order and with the same procedure as in the Key of Do.

The learning of each succeeding scale is usually accomplished in a much shorter time than was allotted for the original scale of Do. As the tonal material of each new scale is mastered, the newly acquired musical vocabulary is immediately applied in the reading of songs.

This method of teaching reading should enable the child to grasp the meaning of key signatures; and consistent reference to the key signature before reading songs should keep its significance always fresh in the memory. Because this method imparts to pupils a thorough understanding of the fundamentals of music, it lays an adequate foundation for future professional study should such be desired.

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3. Dom Ermin Vitry, O.S.B., "Singing Syllabus" (O'Fallon, Missouri: Mimeographed Course of Study, 1935), pp. 24-25.

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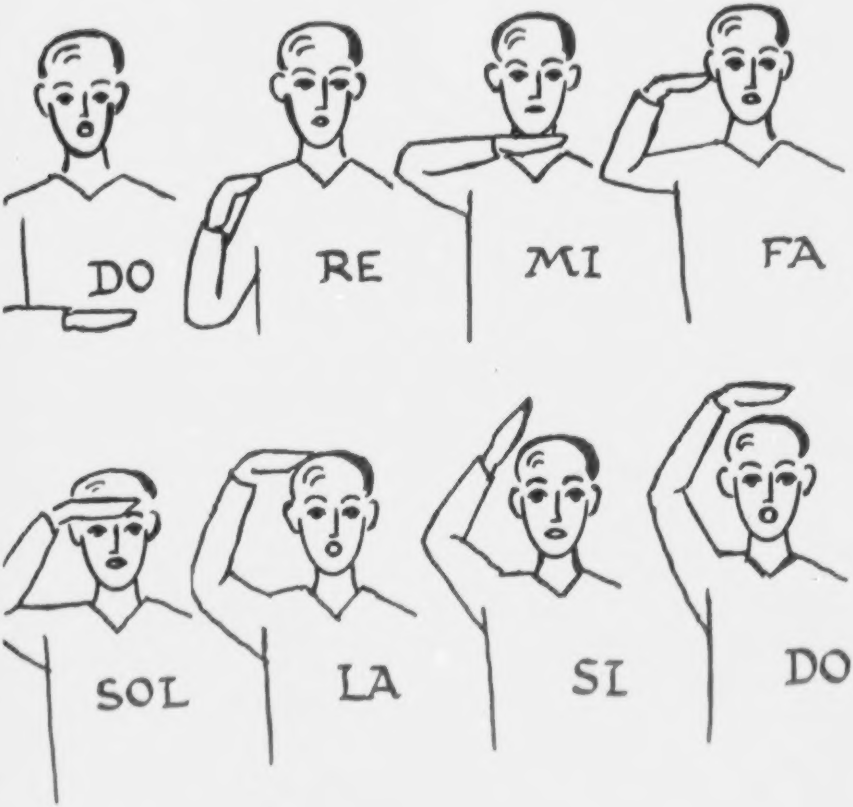
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DO

Figure 1 – Mimetic gestures for the Scale of Do

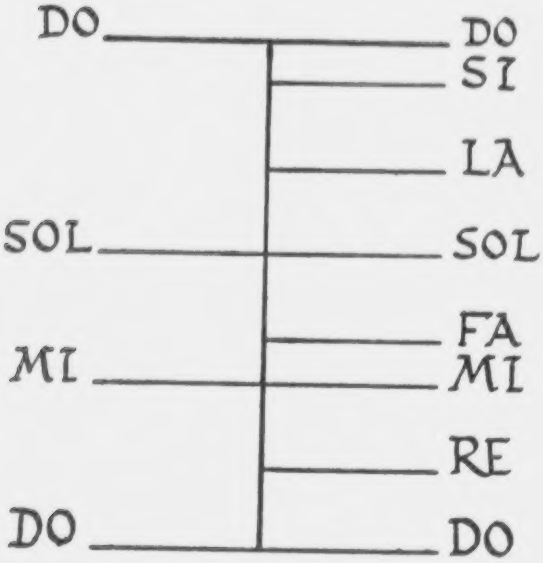
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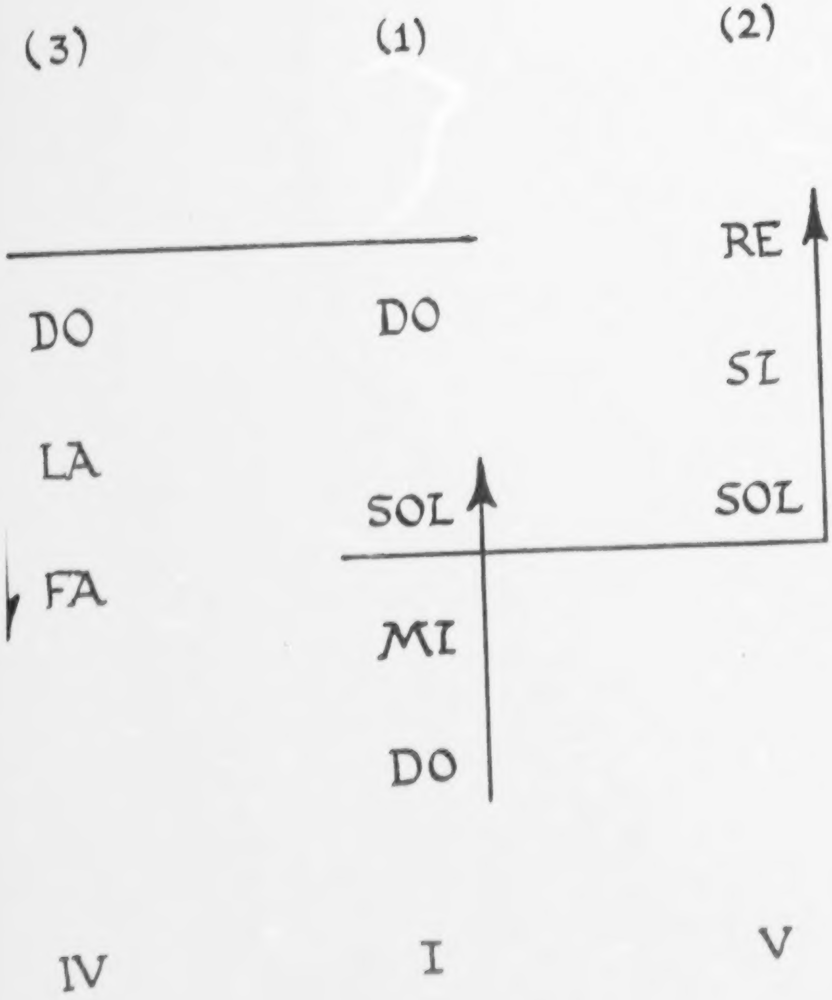
Figure 2 – Chart depicting the ladder of tones


(3)
(1)
(2)
RE
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DO
SI
LA
SOL
SOL
FA
MI
DO
IV
I
V

Figure 3 – Major chords (V and IV) related to the basic chord

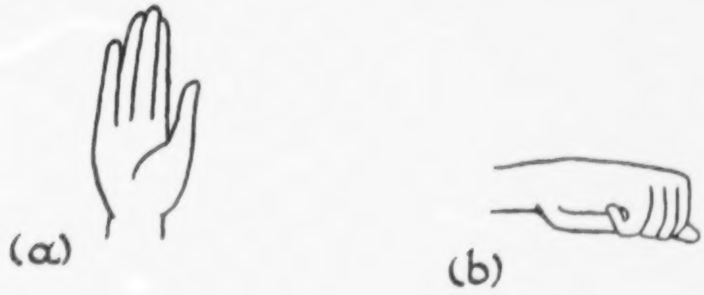


Figure 4 – Mimetic gesture for (a) a raised tone, (b) a lowered tone

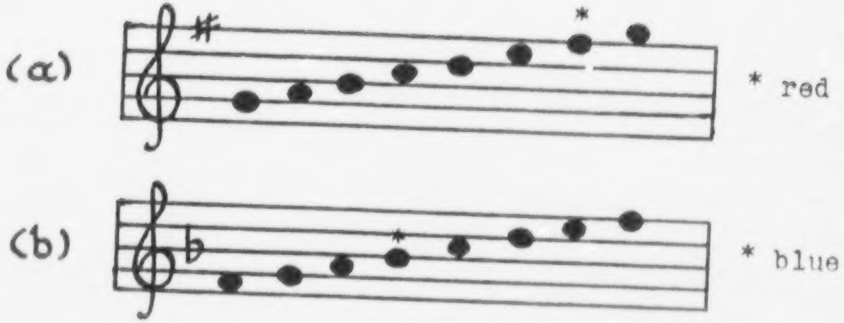
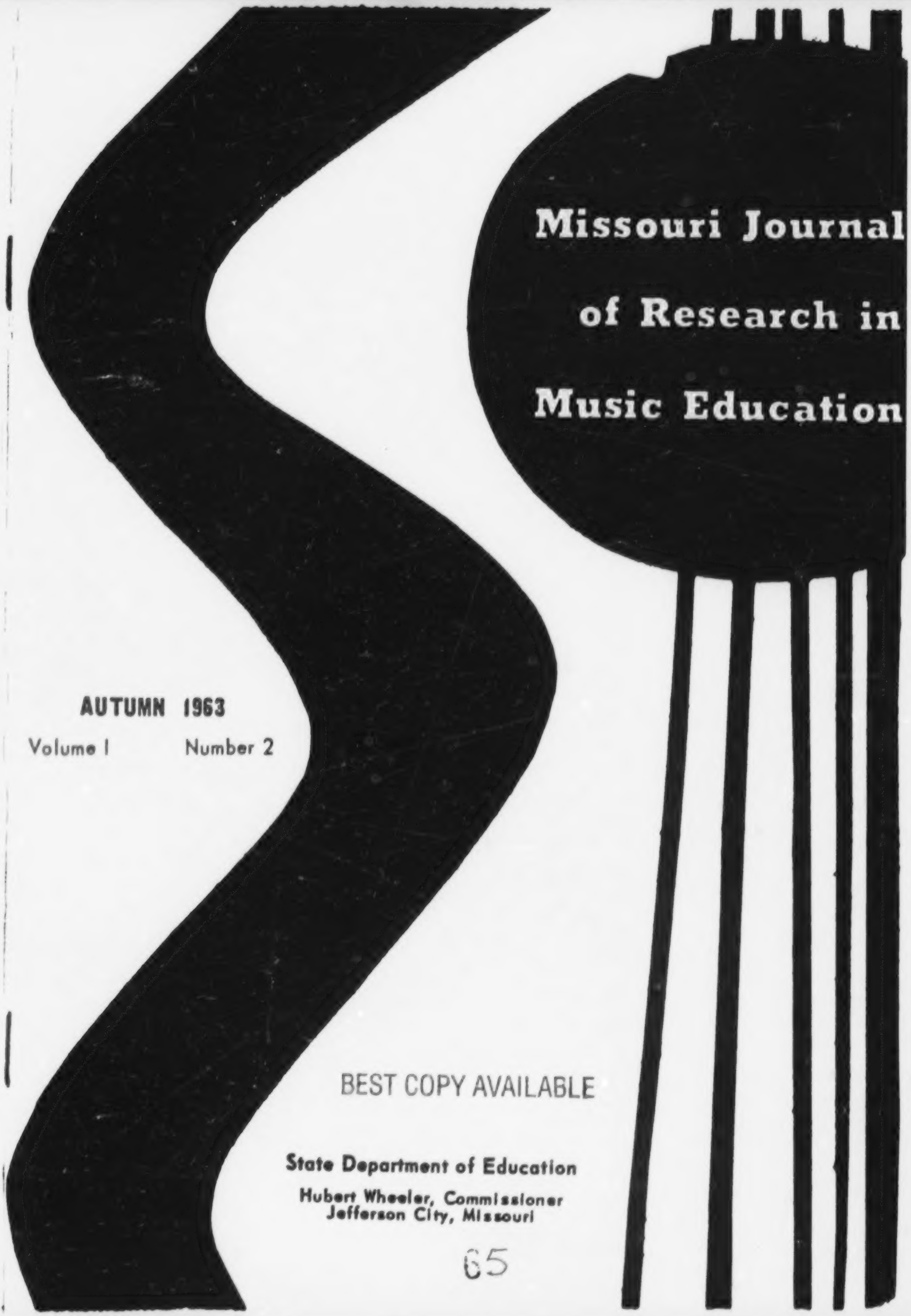


Figure 5 – (a) The scale of Sol Major, (b) the scale of Fa Major



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Volume I Number 2

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State Department of Education
Hubert Wheeler, Commissioner
Jefferson City, Missouri

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MISSOURI JOURNAL OF RESEARCH IN MUSIC EDUCATION

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MISSOURI JOURNAL OF RESEARCH IN MUSIC EDUCATION

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FOREWORD

This edition of **Missouri Journal of Research in Music Education** gives evidence of the continuing interest in research and investigations pertaining to the field of music education as carried on in the institutions of higher learning as well as in the secondary schools of Missouri. The briefs and abstracts in this journal reflect the upsurge in critical investigations in music education and convey a vision and vitality of the authors that are most praiseworthy. The contributors to this journal are to be commended for the excellent manner in which they have carried on their investigations.

Assistant Commissioner
Division of Instruction
Director of Vocational Education

PREFACE

The Missouri Journal of Research in Music Education is a publication devoted to the needs and interests of the school and college music teachers of Missouri and of the nation. It is published as a Bulletin of the State Department of Education. This second edition follows the format evidenced in the initial publication of 1962. Besides the publication of reports of research of experimentation in progress or completed, included are abstracts of theses either completed or in progress, articles of a philosophical nature, as well as simple reports on the results of successful musical pedagogy. Again the Editor is happy to include a paper written by a Missouri High School student (Number V by Stephen Dorn). It is the hope of those who prepared this journal that it will prove again to be a useful means for the exchange of experiences, opinions, and research among practicing music educators as well as those preparing to enter the profession, including those high school students who are interested in music and may eventually enter the field of music education.

Since this publication is not copyrighted, complete articles or excerpts from articles may be made without charge. In so doing, it is requested that credit be given to the Missouri Journal of Research in Music Education.

Copies of this Journal are obtainable without charge from the Missouri State Department of Education.

Suggestions to the editor concerning the format of the Journal or the content of the articles included are solicited.

Grateful appreciation is expressed to those who have assisted in any way in the preparation of this bulletin.

DIRECTIONS FOR IMPROVEMENT OF RESEARCH IN MUSIC EDUCATION

DR. CLIFTON A. BURMEISTER
Northwestern University

This paper by Dr. Clifton Burmeister, formerly of Central Missouri State College and now Chairman of Music Education at Northwestern University, was first presented at the North Central Music Educators National Conference in Minneapolis in March, 1963, and is printed here by special permission of Dr. Burmeister.

* * * * * * * *

The bulk of the research in music education is done by students to satisfy a terminal requirement for a graduate degree.

If it is significant research this need not of itself be cause for concern. Unfortunately, it also seems apparent that the results of that research are not being disseminated in a way calculated to further our growth as a profession. And, for most of us, the research done as a graduate student was truly terminal in that we have done nothing to continue that investigation, nor to initiate new studies of our own.

It is not difficult to document these statements. In 1954, Hoffer, reviewing the status of music education research, reported a sampling of conclusions beginning with that of Schoen (1936) who stated that scientific music research in America was a credit to the psychologist, but a disgrace to school music educators.[1]

Hoffer concluded his survey with Hendrickson and Stratemeyer who reported in the 1950 edition of the *Encyclopedia of Educational Research* that in view of the dearth of adequate research on major issues in music education it would seem that many music teachers resist the scientific approach.

Hoffer concluded, "Music education is not research minded, and it must become more so if it is to progress as have related fields."[2]

There are numerous indications of greatly increased activity in graduate music education research since 1950. Phelps reported that 358 doctoral dissertations in music education had been completed in the decade 1950-60.[3] The number of masters' theses can only be estimated, since one of our problems is our failure to devise an organized procedure for making such information readily available to the profession.

This was evident in a request for information received from a colleague less than a week ago. He had accepted the responsibility of editing a chapter on music education for the projected issue of a review of educational research published at three-year intervals. A critical examination of previous editions disclosed omissions which he hopes to rectify.

Because it is claimed that there is no central source for the needed information, it has been necessary for him to ask individual graduate schools and departments to submit titles, abstracts and vitae for masters' theses and doctoral dissertations completed during the period in question.

The rapid growth in quantity of research activity should be reflected in a similar increase in related articles published in the journals commonly read by the members of our profession. The Music Index, published monthly since 1949, lists practically everything printed pertaining to music. A title search was made covering the years 1950 to 1961 inclusive for articles which purport to deal with any aspect of research in music education, listed under the headings of Research, Dissertations and Theses, Polls and Surveys, Tests and Measurements.

Table 1

MUSIC EDUCATION RESEARCH ARTICLES LISTED IN THE MUSIC INDEX

Year	Number
1950	4
1951	2
1952	3
1953	3
1954	2
1955	7
1956	4
1957	5
1958	3
1959	1
1960	3
1961	1
	38

The paucity of articles is worthy of note, but more significant is the fact that during a period of increasing activity there has not been a corresponding increase in professional reports.

A critical awareness of our inadequacies is evident in most of the articles tabulated above, but there is some disagreement both as to causes and remedies.

Housewright feels that, "Systematic inquiry into the premises of education in music has traditionally been one of the least successful enterprises of our profession. Our lack of success has stemmed more from personal disinterest or incompetence than from a resistance to the idea that research is needed."[4]

Phelps listed ten possible areas of inadequacy in graduate research studies:

1. Topic has little real significance
2. Study consists largely of tabulation of data without projection of logical conclusions
3. Project does not require a musical background
4. Errors have not been eliminated by recourse to original source material
5. Erroneous conclusions have been drawn from the data and results
6. Study displays shortcomings in musical taste and understanding
7. Report is not written concisely and clearly
8. No intellectual curiosity is revealed
9. Study reveals lack of background in music education
10. Method displays inadequate preparation and understanding of research techniques[5]

Jones advanced three reasons for the apparent slow progress in music education research beyond graduate studies:

1. In attempting to be respectable we have tended to substitute statistics for creative ideas
2. Subsidized research largely ignores basic problems difficult to solve because of the obligation to publish results
3. Research done for promotion lacks productive motivation[6]

Leonhard agreed with Housewright when he said, "Even the most cursory inquiry reveals that a very small number of music educators pursue further research in the same area in which they write their doctoral theses, and an alarming number never do further research in any area."[7]

Gaston underlined the effect of this attitude upon graduate research when he challenged each of us with these words, "The most important factor in the development of a research program in a graduate school is a positive attitude on the part of the staff toward scientific research. . . . Real evidence of this positive attitude will be found in the fact that those staff members who are to guide student research are themselves, of their own volition, carrying on research."[8]

Up to this point this paper has been concerned with the status of research in music education as reported by music educators. If the emphasis has been upon faults, weaknesses and inadequacies, it should be viewed as a healthy concern of the profession with its own vital problems. This is necessary, since any suggestions for improvement must be validated in terms of the promise they offer for eventual solution of these problems.

With most of our research activity concentrated in not much more than a decade, it would seem now that we should be concerned primarily with three problems:

1. Improvement of the quality of research
2. Improvement of communication about research
3. Increased involvement of music educators in research

Improvement in the Quality of Research

There are three distinct phases from the initiation of a research problem to its conclusion:

1. Choice of problem
2. Method of collecting and handling data
3. Writing the research report

As might be expected, we have been unduly preoccupied with methodology, collection of data, quantification of data, derivation of results and conclusions, and final expression in scholarly form.

We have not been as critical as we should have been in choice of problem qualitative analysis, and final significance of our activity.

In 1953, Wiebe made a plea that our first research be directed toward the solution of obvious, persistent, chronic problems.[9] He gave as two examples: music reading, and the carry-over into adult/community life. Later, he said, we could indulge ourselves in the type of peripheral "cute" studies which characterize a discipline which has solved its major problems through basic research.

Ten years later, how well can we say we have followed the sense of this injunction? Are we any nearer to solving the problems of musical literacy? What definitive research can we cite to support our practices in teaching reading?

We need guidelines to help us define the limits of research responsibility for music educators. The main criterion for accepting a study to be listed in the Larson bibliography of research studies in music education was, ". . . whether the study makes a contribution to the teaching of music within the generally accepted confines of the special field of music education."[10]

This definition can be used to support two diametrically opposed points of view. One would restrict music education research to problems which are obviously and immediately pedagogical in nature. The other would regard the special field of music education as literally anything which had to do with the transmission of musical skills, information and attitudes.

Pedagogical restrictions encourage the proliferation of peripheral "cute" studies, of which we have too many now. Freedom to seek basic problems in the areas of interest and capability of each student, while highly desirable, imposes certain obligations which we must accept.

1. The student must be qualified to undertake research in his special area of interest.
2. The quality of the research must be judged by the criteria of the branch of music discipline which the student seeks to enter. A student who elects musicological research in music education must meet the highest demands of both areas. To expect less would promote a double standard, disastrous to the profession of music.
3. The need for improved communication to make available basic sources and to avoid over-duplication is intensified.

Improved Communication

The research student should consult available sources for preliminary bibliography in seeking to define a problem. A comprehensive list of these sources can be found in the Music Research Handbook by Morgan and Burmeister.[11]

The problem which we all share is a continuing one. We must support the efforts of the Research Council of the MENC to collect and publish information, regularly and systematically.

The Larson bibliographies, two volumes, covered investigations reported by graduate schools in the United States from 1932 to 1959. It should be noted that the completeness of the listing was dependent on the response to a request for information, that the studies were almost exclusively graduate studies to satisfy degree requirements, and that it was limited to graduate schools in the United States.

As music education becomes more global-minded through increased activities of the International Society for Music Education, the need for regular information about scholarly investigations in other countries is apparent.

In 1960, Housewright detailed the need for a National Music Research Foundation to serve, among other things, as a clearing-house for information about all scholarly research in all areas of music.[12] Although such a foundation has not materialized, the need has not diminished. An agency of this type in which all professional music societies participate which recognize research as a primary obligation could serve as a focal point for national research as well as a nexus for international information.

Increased Involvement

Three persistent, chronic, continuing research problems have been singled out for attention in this paper. Quality of research, especially as it relates to choice of problem, and improvement of communication are problems which will yield to concerted attack, and for which it is possible to suggest specific guidelines.

The third problem is subtler, and perhaps more basic than the others. If it is true that music education research has been less successful than we would wish; and, if that lack of success has stemmed largely from personal disinterest on the part of the profession at large, the problem is apparent, but the solutions are more evasive.

Music teachers, perhaps more than other educators, tend to view teaching as an art. Professional educators claim that it is a science. The musician, immersed in the art of music, forced to recognize the authority of the science of education to meet the requirements of his profession, develops a characteristic ambivalence. The result has been a token acceptance of the need for research by the music educator, while at the same time, he prefers to solve his problems by intuition and repeated experience.

We need a more productive relationship between research and practice. Woodring stated it in these words, "The classis thesis holds that teaching is an art; the antithesis holds it to be a science. In truth it is a little of each, for teaching is a profession. A profession differs from a trade in that it rests upon a body of scholarly and scientific knowledge. In some professions, such as medicine and engineering, the body of knowledge is largely scientific; in others, such as the ministry, it is scholarly but not scientific. In teaching it is both."

"A profession is always something of an art, and teaching is an art in the sense that preaching, surgical skills, and military leadership are arts. But teaching is dependent, too, upon the possession of substantial bodies of both scholarly and scientific knowledge. Teaching differs from other professions in that the teacher is responsible for passing such knowledge on to the younger generation.""[13]

Teaching, then, depends upon the possession of substantial bodies of both scholarly and scientific knowledge which it is the responsibility of the teacher to pass on to the younger generation.

It will not suffice to transmit our cultural heritage intact from one generation to another by methods proved satisfactory in the experience of preceding generations. In a dynamic, democratic society, spurred by the demands of a rapidly accelerating technological universe, research in all of life's activities become increasingly important.

In practical terms this suggests a need for improvement in the following directions:

1. Research done by graduate students in music education add significantly to our body of scholarly knowledge, scientific knowledge, or pedagogical knowledge.
2. While the bulk of research will be terminal research done by graduate students meeting degree requirements, we cannot continue to neglect these areas of great potential:
   a. Long range studies necessary for the solution of problems too involved for graduate students
   b. Group attack of the nature of institutional or foundation research
   c. Continuing research by those who guide student research.
3. We need field studies, action research, "grass-roots" probing for answers to persistent problems, done by music educators at every teaching level. A hopeful sign in this regard is the recent emergence of state research journals.

Directions for improvement of research in music education are not difficult to detail. They are meaningless if we do not accept them and act accordingly.

Become Involved in Research

- **Read research reports critically.** Try to apply them to the solution of your problems where pertinent.
- Choose a problem in your area of interest. Select a method that will provide the data you need for pertinent results and conclusions.
- Report your findings in local, state or national journals.
- It is a professional obligation.

Footnotes

1. Charles R. Hoffer, "Research and the Music Teacher," *Music Educators Journal*, 41 (November–December, 1954), 20.

2. Ibid., p. 21.

3. Roger P. Phelps, "Research in Music and Music Education," *Music Educators Journal*, 46 (June–July, 1960), 51.

4. Wiley L. Housewright, "Research and Music Teaching," *Musical Courier*, 162, (November, 1960), 34.

5. Phelps, op. cit.

6. R. Stewart Jones, "Current trends and New Directions in Educational Research," *Journal of Research in Music Education*, V. (Spring, 1957), 16.

7. Charles Leonhard, "Research: Philosophy and Esthetics," *Journal of Research in Music Education*, 111, (Spring, 1955), 23.

8. E. Thayer Gaston, "Factors Which Underlie the Development of a Research Program," *Journal of Research in Music Education*, 3, (Spring, 1955), 21.

9. Gerhart Wiebe, "Sowhatness in Research," *Music Journal*, 11, (January, 1953),22.

10. William S. Larson, "Bibliography of research studies in music education, 1949-56," *Journal of Research in Music Education*, 5, (Fall, 1957), 69.

11. Hazel B. Morgan and Clifton A. Burmeister, *Music Research Handbook* (Evanston, Ill.: The Instrumentalist, 1962), 14.

12. Housewright, op. cit.

13. Paul Woodring, *A Fourth of a Nation*, (New York: McGraw-Hill, 1957) 167.

TWENTIETH CENTURY MUSIC FOR ELEMENTARY SCHOOL CHILDREN

BARBARA THOMPSON
Riverview Gardens Public Schools

INTRODUCTION

It is assumed that the purpose of education is to recognize and understand to a reasonable degree the various aspects of the world in which a person lives so as to deal with the world in a way advantageous to both oneself and society as a whole. However, there seems to be a tendency for even recognized intellects to ignore the fact that music is as much a part of our environment and culture as are more widely recommended subjects such as literature and sports. The musician is as much a part of our society as the writer. Music is a part of even the most primitive cultures and is found on many different intellectual levels in the United States today. Through radio, television, and recordings it has become a part of American life that is simply taken for granted. At the same time public schools which stress the literature of recognized authors usually ignore music of a comparable level. Since this music is less accessible to the general public than literature, there is a tendency to act as if it either does not or does not need to exist. The same people who stress current happenings in other areas seem unaware that anything worth mentioning happens in the field of music. The work of composers such as Stravinsky and Hindemith is not only current intellectual achievement comparable to that in physical and social science, but it also follows comparable laws of cause and effect. It is a strange system of education that condones ignorance in any subject simply because people who do not understand it choose to ignore it.

Music of some type is part of the world of almost any first-grader even though he merely accepts it the way he accepts the air he breathes. The many phases in musical development can be recognized by normal children if only adults accept the fact that music of a level of development comparable to any other subject in the school curriculum does exist. It is a peculiar situation in which lesser intellectual achievement is sanctioned above greater achievement, and the very institution which stands for intellectual achievement is indifferent to the situation. Every child must be taught about great social, scientific, and literary achievements, but achievements in music have to sell themselves to people who tend to consider a serious composer in somewhat the same way Columbus was considered when he first chose to act on the principle that the world is round instead of flat. Even many of those who recognize what has been done in music in the past act as if music is different from all other fields of endeavor and the climax of its development is somewhere in the past. On the contrary, it is the music of the present that keeps the music of the past alive. People tire of anything that goes noplace, so while science turns to the depths of the ocean and the heights of outer space, music also finds new paths. To leave this musical aspect of the world out of education is to create a false picture which is untrue to education itself.

Taking into consideration the interests and general characteristics of elementary school children, this paper recommends a number of twentieth-century musical compositions. They are listed according to the alphabetical order of the composers' names, and suggestions are given for their presentation.

Antheil: Ballet Mécanique

The object of this composition of 1927 is experimentation in sound, an activity in which children can take part. George Antheil first scored it for eight pianos, pianola, and an airplane propeller. Later anvils, bells, automobile horns, and buzzsaws were added. Elementary school children can use sticks or pencils to tap objects in their classroom and compare the resulting pitches and qualities of sound. Several days can be spent profitably in finding new sounds both in and out of school. Different sizes of bells, bottles, and pieces of wood or metal can be used to advantage. Each child can then choose a different sound or sound-combination. Then the search for rhythm patterns can begin. To help both teacher and students keep track of the patterns, the teacher can write each child's name on the blackboard and notate a pattern after it. The names themselves can serve as bases for rhythm patterns. It will be easy to discover that all of these sounds and rhythms cannot be heard at the same time, so the recording of "Ballet Mécanique" can be used to see how Antheil arranged sounds so a certain one will be effective or so a new sound will result from a combination of certain other sounds. The children can also listen for the results of a sequence of contrasting pitches and then a sequence of more similar pitches. They might like to decide on a certain order for their own "Ballet Mécanique."

Barber: Adagio for Strings

The meaning of the title should be explained to the children. If real stringed instruments are not available, good pictures of them must be. If possible, demonstrate high and low pitches on a violin, and if the teacher can produce what is considered a beautiful singing tone by a concert violinist, he should do so by playing a few sustained notes. The emphasis in listening to Samuel Barber's "Adagio for Strings" should be on beautiful sound and slow tempo. However, it should be noticed that one place in the piece seems to stand out. Discuss the reasons for this.

Bartók: The Diary of a Fly from Mikrokosmos

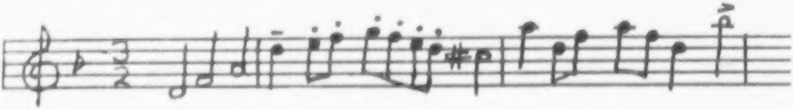
Béla Bartók's "Mikrokosmos" is a collection of 153 piano pieces ranging from the simplest grade of performance difficulty to virtuoso level. He has also written two volumes of piano pieces for children, the first of which is based on Hungarian folk tunes and has been recorded by MGM. If the children hear some of these, those who take piano lessons might want to try playing them. "The Diary of a Fly" is one of the more difficult of the pieces from "Mikrokosmos," and it is one of five arranged for string quartet by Tibor Serly and recorded. No one would have to be told that this short piece represents the buzzing of a fly. The quartet version can be presented as a contrast from Barber's "Adagio for Strings" in both string sound and in tempo. Bartók has also written some easy violin duets about which the children should know.

Bloch: Infantines

These short piano pieces entitled "Lullaby," "The Joyous Party," "With Mother," "Elves," "Joyous March," "Melody Pastorale," "Rainy Day," "Teasing," and "Dream" are written for children to perform. However, they illustrate musical qualities to which their titles are a clue, and they have been recorded by MGM with similar pieces by other outstanding contemporary composers.

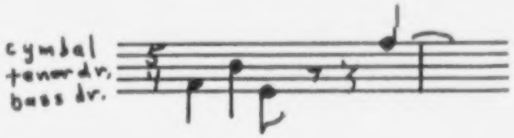
Britten: Young People's Guide to the Orchestra

In this narrated composition by Benjamin Britten, the instruments of the orchestra are illustrated in thirteen variations on the following theme by Purcell:



The children should be told that Purcell composed music in England nearly 300 years ago, and they might want to hear a hornpipe from one of his harpsichord suites. Britten, who is now writing music in England, follows the variations with a fugue, so this composition illustrates the fugue as well as variation form. At the end the brass choir adds the Purcell tune to the lively fugue. Pictures of the instruments should be shown while "Young People's Guide to the Orchestra" is being played in the classroom.

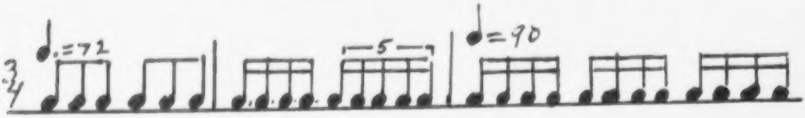
Britten's "The Little Sweep" from "Let's Make An Opera" is a children's opera which allows for audience participation. The following percussion accompaniment is repeated over and over in the "Sweep's Song:"



The children can play this percussion part with the recording, but the opera as a whole is of junior high performance level. Elementary children can pretend to be the audience while listening to the recording. They would sing "Sweep's Song," "Sammy's Bath," "Night Song" with its bird calls, and "Coaching Song." They can clap the rhythm of "Marching Song" and "Coaching Song."

Carter: Variation 6 of Variations for Orchestra

This variation is a canon written in such a way that after each entrance of the subject it gathers speed and still fits with the next entrance of the subject which is at the original speed. When the children become aware that each voice increases in speed independently, they should be told a little about "metrical modulation," which is what Elliott Carter calls this device:



In teaching any fugue or canon, it is a good idea to put the subject or the beginning notes on the blackboard. By using a score and an opaque projector, the teacher can point to each entrance as it is heard.

Cataldo: Many Moons

After listening to Britten's "The Little Sweep," Menotti's "Amahl and the Night Visitor," and Orff's "The Moon" or "The Wise Woman," fifth and sixth grade children are likely to want to put on their own operetta. Jane Mattingly Cataldo has written an operetta in a contemporary idiom for this purpose as a thesis for a Master's Degree at Washington University. It is based on the James Thurber play in which a little princess becomes ill from eating too many sweets and says she must have the moon before she will recover.

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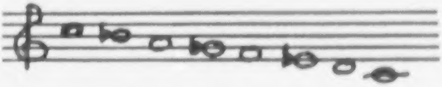
Copland: Music for the Theater

Besides "Music for the Theater" by Aaron Copland, the jazz idiom is found in hundreds of other compositions, such as Milhaud's "Creation of the World," "Ragtime" from Stravinsky's "L'Histoire du Soldat," Gershwin's "Porgy and Bess," and Wilder's "Jazzman Buys a Farm." The teacher can explain the following characteristics of jazz:[1]

Descending major scale with "blue notes"



Syncopated rhythm

Tone color from saxophone vibrato, muted brass, bongo drums, maracas, vibraphone, etc.

Form from a rhymed couplet with the first line repeated twice in succession (and made more emphatic)

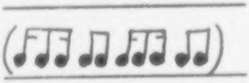
I IV I V I harmony

Another Copland composition children should hear is "El Salón México," in which he recalls a visit to Mexico. Children are likely to know the "Mexican Clapping Song." They can listen for rhythm patterns in "El Salón México," and some can use maracas to play these patterns while others clap the basic beat. Also listen for the trumpet solo and the E^b clarinet solo in this composition.

Among other cowboy tunes, the familiar "Goodby, Old Paint" is used by Copland in his "Billy the Kid Ballet."

Debussy: Children's Corner

Originally written for piano, Claude Debussy's "Children's Corner" has been arranged for flute, harp, and cello. Its sections are "Doctor Gradus ad Parnassum," "Serenade for the Doll," "Jumbo's Lullaby," "The Snow is Dancing," "The Little Shepherd," and "Golliwogg's Cakewalk." The cakewalk rhythm



should be put on the blackboard and clapped.

Among other Debussy pieces suitable for elementary school children are the following:

Claire de lune from Suite bergamasque
Prelude to the Afternoon of a Faun
Fireworks from Preludes for Piano
Pagodas from Estampes
La Flute de Pan from Chanson de Bilitis

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It can be explained that "Claire de lune" gives you the "impression" or "feeling" you get from being in the moonlight. Notice that the place you can hear the best in "Afternoon of a Faun" is a place that is suddenly softer instead of louder. Play whole-tone scales and pentatonic scales (black keys) on the piano. The children can take turns playing on the black keys. Since there are no half steps, the children can improvise by using just the black keys. They should think of a rhythmic or melodic pattern upon which to base their improvisation, and they must think of a way to make some part of their improvisation seem more important than the rest. In connection with the pentatonic scale listen to Milhaud's "Touches Noires" and compare "Laideronette, Empress of the Pagodas" from Ravel's "Mother Goose Suite" with Debussy's "Pagodas." Although "La Flute de Pan" by Debussy is sung in French, the following translation has something to offer children:

"For the festival of Hyacinthia he had given me a syrinx made of well-fashioned reeds, held together with the white wax that is as sweet as honey to the lips. As I sit on his lap he teaches me to play, but I am trembling. Then he plays, so softly that I can hardly hear him........ It is late; as night falls the green frogs begin their song. My mother will never believe it took me so long to look for the belt I had lost."[2]

Delius: On Hearing the First Cuckoo in Spring

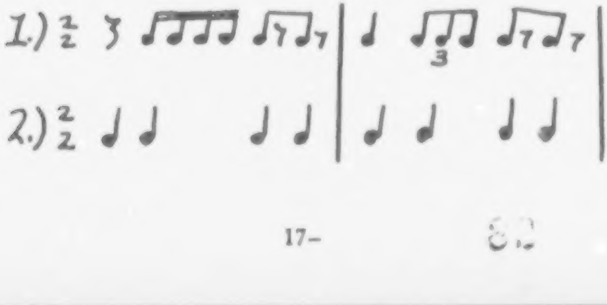
The English composer Delius creates this "impression" of the time when a bird returns after all of his kind have been away for a long time. The children should take turns singing "5-3," the pitches the cuckoo sings and then listen for the clarinet to play them on the recording of this composition by Frederick Delus.

Dohnányi: Variations on a Nursery Song

Sing "Twinkle, Twinkle Little Star" both with words and numbers (1, 1, 5, 5, 6, 6, 5). Compare Dohnányi's variations with Mozart's "Variations in C."

Falla: Miller's Dance from The Three-Cornered Hat

Divide the class into two groups and have each group take one of the following rhythm patterns. Maracas can be used for pattern 1.



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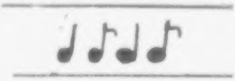
Listen for what happens to these patterns in **Manuel de Falla's "Miller's Dance."** Listen for the French horn solo, the English horn solo, and the oboe solo.

Gershwin: Porgy and Bess

(See Copland's "Music for the Theater.") In this use of selections from George Gershwin's "Porgy and Bess" the setting is of greater importance than the story.

Hanson: Overture, Children's Dance, and Maypole Dances from Merry Mount Suite

Discuss what an overture is and think of other overtures with which the children might be familiar. Listen for the skipping



rhythm in the "Maypole Dances."

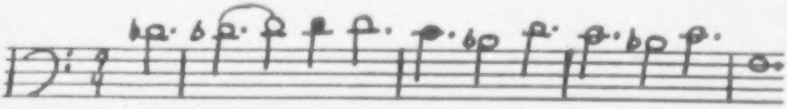
Harris: When Johnny Comes Marching Home

This 8-minute composition is divided into two equal parts. The material Roy Harris uses is the theme of the song "When Johnny Comes Marching Home," fragments of the theme, or variations of the theme. The children should be able to sing the song, and they can listen to see when the theme sounds high or low, happy or sad.

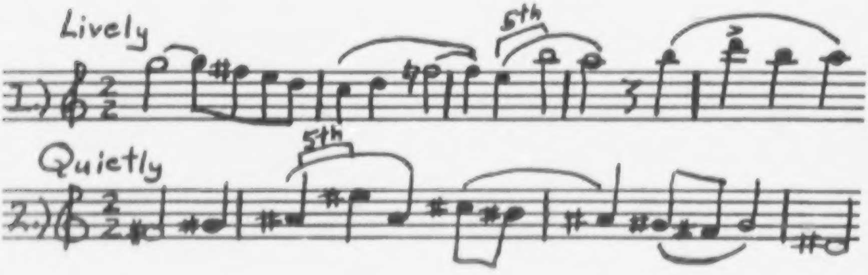
Hindemith: Fugue #3 from Ludus Tonalis

Here is a fugue with a much different sound than Britten's fugue on the Purcell theme. It can also be contrasted against a Bach fugue. With the score and an opaque projector it takes little time to point out the retrograde use of the subject against itself. When children follow the notes of a fugue subject, they are also watching the notes ascend and descend on the staff as they hear the pitch rise and fall.

"Concert of Angels," the first movement of Paul Hindemith's "Mathis der Mahler," can be used to teach sonata-allegro form. Notate and listen for the three trombones to play the religious folk song of the Middle Ages, "Three Angels Sang:"



The children might notice the similarity between the continuation of this line and the melody of the familiar song "Blow the Man Down." The two main themes of this movement are characterized by stepwise melodic progression with the leap of a fifth at the points of stress:

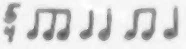


Point to the notated fifths and take turns singing them. Discuss the development or use of these two themes against the return of the trombone subject. Following this, the two main themes return more clearly, or it can be said that they are "recapitulated."

"Let's Build a Town" is a playlet for children written by Hindemith and published in the second-grade book of the Allyn and Bacon public school music series, "This Is Music."

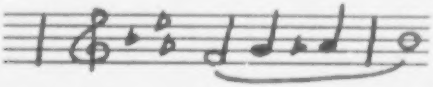
Holst: Planets Suite

"Mars, the Bringer of War" is characterized by the relentless hammering of the rhythm pattern



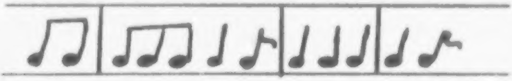
beginning with the strings "col legno." If possible, the teacher should illustrate this technique of using the stick of the bow on the strings. This pattern stops for a "call to arms" by the tenor tuba, answered by the trumpets, but it soon returns.

"Venus, the Bringer of Peace" is welcomed by the horn:



Brutal Mars cannot disturb Venus!

"Mercury, the Winged Messenger" moves very rapidly back and forth from the first 4 notes of the B-flat scale to the first 4 notes of the E scale and from duple to triple rhythm. Notice how the instruments "answer" and "chase" each other up and down. It sounds as if they chase each other high up into the sky, where

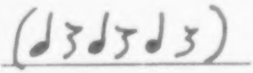


is heard over and over until a violin plays alone. It is followed by an oboe playing alone and then by a flute solo and celesta. When the more rapid changeable section returns, this becomes known as a scherzo.

"Jupiter, the Bringer of Jollity" is a joyous, hearty movement with a hymn in the middle (B section). To this hymnlike melody, Holtz has set the words "I vow to thee, my country."

Syncopated chords and a sad stringbass melody is heard in "Saturn, the Bringer of Old Age." However, old age turns out to be more peaceful than sad.

"Uranus, the Magician" repeats his incantations three times: first they are slowly but firmly sounded by the trumpets and trombones, then they are sounded more rapidly by the tubas, and finally they are hammered out by the timpani. After a pause, a dance in skipping rhythm begins. (See Hanson's "Merry Mount.") This changes to a dance with a different rhythm



and then to a pompous tune as if the magician were very proud of himself. In the final part the notes of the magician's incantations are used in different rhythms.

"Neptune, the Mystic" sounds very softly from far away and moves further and further away until it is gone. Arpeggios on two harps and a celesta and two 3-part choirs of women's voices singing no words show the mystery of this planet.

The children should be introduced to only one or two of Gustav Holst's "Planets" during a single music period. Although these characteristics of the planets are based on the pseudo science of astrology, correlation with a study of the planets in science would have some justification.

Honegger: Pacific 231

The idea of this composition is the sensation or feeling of th increasing speed of a locomotive. Arthur Honegger composed it abou the same time as Antheil composed "Ballet Mécanique."

Ibert: Trois pieces brèves for flute, oboe, clarinet, horn, and bassoo

The brevity of these three pieces with their contrasting character istics makes them accessible to children. The first is an Allegro, th second is a 25-measure Andante in which the flute and clarinet kee answering and exchanging ideas, and the third makes use of changin tempos. This composition and Milhaud's "Cheminée du Roi René" fo the same instruments is available on a Stradivari recording. They ca be contrasted with Starer's "Five Miniatures for Brass."

"Histories" for piano by Jacques Ibert is children's program musi with the following titles:

The Keeper of the Golden Tortoises
The Little White Donkey
The Old Beggar
A Giddy Girl
The Crystal Cage

Ives: Halloween

This piece consists of fourteen measures repeated four times an followed with a coda. It is first played quite simply by second violin and cellos. After the first violins and violas play it, the piano is hear playing it above all the strings and it begins to deserve its title. Wher the bass drum joins the strings and piano in the fourth repetition, it be comes more like a nightmare. The absurd coda proves it is a Halloween prank.

Every child in public school learns the song "America," so Ive's "Variations on America for Organ" should be included in the listenin program.

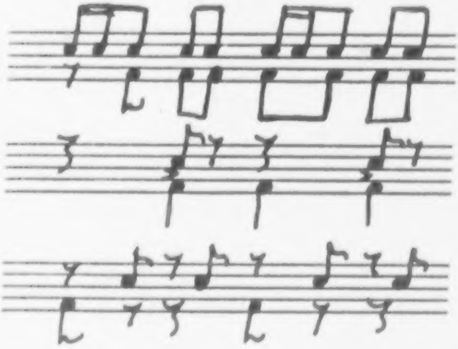
Kabalevsky: Comedians, Op. 26

This is a suite from Kabalevsky's music for the play "Inventor an Comedian" staged at the Central Children's Theater in Moscow in 1938 "Comedians' Gallop" which follows the "Prologue," illustrates AB (ternary) form. Listen for the xylophone tune repeated by first violins i the B section. The A section of the "March" is repeated in the sub dominant. After the B section, A returns in the tonic an octave higher Contrast the duple rhythm of the "March" with the triple rhythm of th "Waltz" which follows it. Then comes "Pantomime," "Intermezzo," "Little Lyrical Scene," "Gavotte," "Scherzo," and "Epilogue." Thi suite is recorded by the New York Philharmonic on Columbia Records

Dmitri Kabalevsky's "Children's Pieces," Op. 27, is recorded by Monarch on a record with Debussy's "Children's Corner," and Schumann's "Scenes from Childhood."

Khachaturian: Sabre Dance from Gayne Ballet No. 1

This dance combines the following rhythms which can be clapped or played on rhythm instruments:



The children can discover that this rhythm combination does not fit the contrasting middle section of the dance.

Kodály: Háry János

This suite by the Hungarian composer Zoltan Kodály tells of the exploits of a retired old soldier with a vivid imagination. The first sections of the suite are entitled "The Fairy Tale Begins," "Viennese Musical Clock," and "Battle and Defeat of Napoleon." Note that the sneeze at the beginning of the suite is supposed to signify that the story is all true!

Menotti: Amahl and the Night Visitor

None of Menotti's operas is more suitable for children than this one-act opera, especially desirable during the Christmas season.

Milhaud: La Creation du Monde

> "The plot is the story of the creation of the world as it might be imagined by an aboriginal mind. As the curtain rises slowly on a dark stage, one discerns in the center of a clearing a mass of intermingled bodies. Moving around this confused mass are three giant Deities, the masters of Creation. They pronounce magic spells, and as they do so the center of the mass moves and stirs. Slowly, a tree arises, and then another. As the leaves of the trees fall to earth, animals – elephants, monkeys, a tortoise – are created and gradually form a group which encircles the three Dieties. Now the circle parts, the Deities perform more spells which result in the formation of Man and Woman ...."[3]

The predominant melodic line of the opening section is played by an alto saxophone. (See Copland's "Music for the Theater.") Of special interest is a fugue with percussive piano accompaniment. Instruments enter on the fugue subject in the following order: stringbass, trombone, saxophone, and trumpet.

"Touches Blanches and Touches Noires" and "Cheminée du Roi René" are compositions by Darius Milhaud desirable for children. He has transcribed the thirteenth-century pastorale "Robin and Marian" for school use.

Orff: The Moon

Based on Grimm Fairy tales, "The Moon" and "The Wise Woman" are two of Carl Orff's best known theater works.

Piston: The Incredible Flutist

This orchestra suite is extracted from Walter Piston's ballet with the same title.

Poulenc: Story of Babar, the Elephant

Compare this with Stravinsky's "Circus Polka."

Prokofieff: Peter and the Wolf

This is one of the best known narrated compositions illustrating orchestral instruments. Other compositions by Serge Prokofieff which are desirable for children are:

Ugly Duckling
Cinderella
Lieutenant Kijé
Love for Three Oranges
Summer Day Suite
Winter Holiday Suite
Music for Children
(recorded by MGM)

Ravel: Mother Goose Suite

The orchestration of this suite is especially recommended for children. In the fourth section of the suite, "Beauty and the Beast," Beauty is represented by the clarinet and the Beast by the contra-bassoon. The other sections are:

Pavane of the Sleeping Beauty
Hop O' My Thumb
Laideronette, Empress of the Pagodas
The Fairy Garden

"Histories naturelles" by Maurice Ravel consists of five humorous and realistic characteristics of animal life. "Daybreak," with the murmur of rivulets and song of birds, and the "Pantomime" of Pan and Syrinx from "Daphnis and Chloe" also have a place in the child's world.

Resphighi: Gli Uccelli

Four of the five movements of "Gli Uccelli," which means "The Birds," are orchestral transcriptions of keyboard pieces descriptive of poultry and birds such as the cuckoo. (See Delius.) One of the pieces is by Rameau, a composer of the late Baroque period.

Roussel: The Spiker's Feast

The sections of this ballet-pantomime are:

Prelude and Entrance of the Ant
Dance and Death of the Butterfly
Birth and Dance of the Dayfly
Death and Burial of the Dayfly

The ant seems to be running, or maybe he takes fast steps because he is so small. When the children hear his entrance they can make their fingers travel with him. After listening to "Dance and Death of the Butterfly," some children might like to dance with him. Of course, when he stops dancing they too must stop. Bartok's "Diary of a Fly" can be compared with the sections of this composition.

Satie: Parade Ballet

Satie's "Parade" consists of "fragments of melody and a strict fugato, lyrical phrases and driving ostinato rhythms, simple diatonic harmonies and clangorous polytonal effects."[4] His scoring for typewriter, steam whistle, and rattle suggest Antheil's "Ballet Mecanique." Here is part of Cocteau's synopsis of the action:

> "The Chinaman pulls out an egg from his pigtail, eats and digests it, finds it again in the toe of his shoe, spits fire, burns himself, stamps to put out the sparks, etc."

> "The little girl mounts a race-horse, rides a bicycle, quivers like pictures on the screen, imitates Charlie Chaplin, chases a thief with a revolver, boxes, dances a rag-time, goes to sleep ...."[8]

Rather than telling the children what to expect, have them listen first and imagine their own parade. After hearing other compositions in this listening plan, they should recognize the Chinese sound and the rag-time. Satie has also written some children's piano pieces.

Schoenberg: Five Pieces for Orchestra, III

The children can listen for the tone color to change while the pitches remain unchanged in the "Pointillistic" writing of the third of Arnold Schoenberg's "Five Pieces for Orchestra," Op. 16. His Op. 19 is "Six Little Piano Pieces." Each of the first three of the "Pieces for Orchestra" and each of the piano pieces are short enough to be within a lower-grade child's attention span, and the child is likely to accept the atonal sound more readily than adults.

Scott: Ballad told at Candle Light

A ballad is a story, and in the manner in which a story-teller spins out his tale, this ballad grows out of a single theme in an A A^1 A A^1 Codetta (A) pattern. Listen for changes from minor to major.

Sessions: The Black Maskers

A rich and distinguished gentleman arranged a gorgeous masquerade in his castle. Strange masqueraded people kept coming and would not tell who they were. In the "Scena" following the "Dance," the gathering is overwhelmed by the Black Maskers. The last two movements are a "Dirge" and a "Finale" which suggest submission rather than triumph.

Shostakovich: Polka from the Golden Age Suite

This "Polka" specializes in surprise notes intended to make people laugh. The polka step (step, close, step, hop) can be used with this music, but there are also surprise breaks in the rhythm. This is one of Shostakovich's earlier compositions, but this same dry humor is found in the Allegro second movement of his fifth symphony. This movement is a scherzo (ABA). Shostakovich's "Children's Pieces," recorded by MGM, are entitled "March," "Waltz," "The Bear," "A Happy Fairy Tale," "A Sad Fairy Tale," and "The Mechanical Doll."

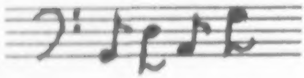
Starer: Five Miniatures for Brass

These are "Fanfare," "Air," "Canon," "Chaconne," and "March." The form of the "Canon" and the "Chaconne" should be reviewed for the children. Robert Starer also wrote "Lullaby for Amittai."

Stravinsky: L'Histoire du Soldat

1. The Soldier's March. The children can keep time with the ostinato "left-right." Marching tunes from this section are recognizable later in the work. Note that the march is a bit irregular. One must hop occasionally to come out on the correct foot.

2. Soldier at the Brook. The 4-note bass ostinato returns in "The Devil's Dance," and the cornet and violin melodies return in "The Little Concerto."



3. Pastorale. Listen for the clarinet and bassoon duet which returns after a "middle section."

4. The Royal March.

5. The Little Concerto. This begins and ends with a clarinet, cornet, and violin trio. Middle section themes are from "Pastorale" and "Soldiers March."

6. Three Dances: Tango, Waltz, Ragtime. The "Tango" is in ABAB form, with a main theme of the whole composition in the B sections. The "Waltz" changes to the "Ragtime" with no division between the two, then the percussion is added.

7. The Devil's Dance.

8. Chorale. Compare this use of "Ein' Feste Burg" with a Bach harmonization of the same chorale.

9. Triumphal March of the Devil. This is an example of rondo form. The 3-bar theme associated with the soldier and made familiar in the "Royal March" is stated at the beginning and heard five times, the last of which is very faint just before the drums sound.

Stravinsky's "Circus Polka" was written "for a young elephant" and used by Ringling Brothers and Barnum and Bailey.

Taylor: Through the Looking Glass

Deems Taylor wrote these pieces to the sequel to Lewis Carroll's "Alice in Wonderland." They are:

Ia. Dedication
Ib. The Garden of Live Flowers
II. Jabberwocky
III. Looking Glass Insects
IV. The White Knight

Thomson: Filling Station

This ballet suite by Virgil Thomson has the following sections:

Introduction
Mac's Dance
Motorist and Mac
Truck Drivers' Dance
Tango
Waltz
The Big Apple
The Chase

Vaughan Williams: Greensleeves Fantasy

The song "Greensleeves" should be familiar to the children. (See Harris' "When Johnny Comes Marching Home" and Ives' "Variations on America.")

Villa-Lobos: The Baby's Family

Hector Villa-Lobos wrote these pieces for the children of another Brazilian musician. The first volume is about eight dolls including "Punch" and "The Witch Doll." In the second volume such things are found as a paper bug, a cardboard cat, a toy mouse, a rubber dog, a wooden horse, a tin ox, a cloth bird, a cotton bear, and a glass wolf.

A children's favorite by Villa-Lobos is "Little Train of Caipirâ."

Webern: Six Bagatelles for String Quartet

These have been called "Melodies in one breath." They are each only from 8-13 measures in length. Therefore, each sound is of great importance and the idea is to see how much one can hear in such a short time.

Wilder: Jazzman Buys a Farm

Alec Wilder is a jazz composer who borrowed from the Baroque composer Rameau. (See Resphighi's "Gli Uccelli.")

These recommendations and suggestions include singing, rhythmic activity, creative activity, and music fundamentals as well as listening, which is basic to all music activity and not only where recordings are involved. In this paper twentieth-century music has also been used as a means of introducing earlier music, all of which, it is hoped, will become a recognized part of the future life of the students.

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TEACHING MUSIC CLASSES THROUGH CLOSED-CIRCUIT TELEVISION

RICHARD O. GARCIA
Bayless Public Schools

"In February, 1962, . . . Commissioner of Education, Hubert Wheeler, established a committee to investigate the potentials of a statewide (educational) television system for Missouri." After almost a year of study, "The Committee believes that a statewide educational television network is technically feasible and educationally sound for Missouri."[1] I cite these quotations and information to illustrate the growth and potential expansion of Educational Television.

In the immediate area of St. Louis and St. Louis County we have several schools using closed-circuit television in addition to KETC, our open-circuit television station.

Bayless School, where I teach music, installed a closed-circuit television system in April, 1961. For two years, I have been teaching the 5th and 6th grade music classes over television.

If the growth of Educational Television does take place as expected, there also should be a corresponding demand for television teachers. With this thought in mind, I have decided to describe my experiences as a closed-circuit television teacher, hoping that it may be of benefit to others, and realizing that two years of television teaching does not necessarily qualify me as an expert.

Preparation for Television Lessons

Prior to starting the television programs in September, I visit each classroom to give directions to the students and to establish personal contact with the students and the teacher. I make a few seating changes to aid the singers who need help (this seating change to apply only during music class), and I check to see if there are sufficient music books in each classroom. I emphasize the usual procedures that apply to any classroom, such as maintaining proper posture, and keeping only music material on the desks during music. Finally, I have the students sing several songs so that I can listen to the over-all vocal sound of each room.

As in all types of teaching, this is not the beginning of the teacher's work year. This is just the beginning of class meetings. This is especially true of television teaching, for the programming or script-writing for this first semester was started during the summer.

There are several points to consider in writing a television script, but first I would like to make the following points, and they would apply equally to regular classroom or television teaching.

Before writing a script a teacher should prepare a general outline of what he is trying to achieve in the various areas of music for the entire year.

It also helps to have an over-all plan of presentation to give continuity to the music lessons. For example, I might present a series of lessons which discusses folk songs, ballads, and art songs, or possibly the music lessons could be based on a musical tour of the world. With this type of program the teacher has to be careful not to follow the idea so closely that it limits his teaching. It is also helpful if the teacher checks the school calendar at least through Christmas to ascertain the exact number of lesson times available for use. This will be an aid in spacing the materials properly, as well as in keeping the holiday programs in correct order.

Writing Television Scripts

In writing a script, I start by heading the page with the appropriate grade and the lesson number. In the upper right-hand corner of the paper I list the recordings, tapes and charts that I am personally responsible for preparing and bringing to the studio. I group this list so that I can see at a glance what I need and can collect it with a minimum of effort. Approximately one-third of the paper on the left-hand side is reserved for visual materials to be used in the program and also for the various types of camera shots to be used. The remaining two-thirds of the paper is used for the script itself, which I will refer to as the audio portion. Dialogue should be in lower case type or regular type. All information other than dialogue should be in capital type. This includes the entire visual section and certain points in the audio section such as placement or movement on the stage and personal reminders to illustrate certain points. This will aid both the television teacher and the producer in televising the performance smoothly. Perhaps this method of script-writing might be more easily understood by referring to the following sketch.

Grade 5 Recording: Beethoven's
9th Symphony
Lesson 12 Tape recording
Charts of tone patterns

Visual	**Audio**
CAMERA 1 TABLE MCU^2	(MR. GARCIA SEATED AT TABLE) Dialogue ....
CAMERA 2 PORTRAIT OF BEETHOVEN CU	....
CAMERA 1 TABLE CU ON CHART	(HOLD UP CHART OF TONE PATTERNS) Dialogue ....
etc.	etc.

A duplicate copy of the script should be made for the Audio-Visual Coordinator's use.

After the television teacher and the technical crew have worked together for a while, it is possible to use an outline type of script with just the essential items listed. This works all right for the teacher and crew if the particular program is not too involved. The following is an example of an outline type of script.

	Grade 5 Lesson 12	Recordings Tapes Tone patterns
CAMERA 1 MCU MR. GARCIA CU of TONE PATTERNS	1. TONE PATTERNS	
MCU MR. GARCIA	2. REVIEW SONG:	KEY OF ___ TITLE AND PAGE ___
CAMERA 2 CU APPROPRIATE PICTURE CAMERA 1 MCU MR. GARCIA	3. NEW SONG:	KEY OF ___ TITLE AND PAGE ___
FS TO BLACK BOARD MS THEN CAMERA 2 CU BLACKBOARD	4. MUSIC FUNDAMENTALS: RESTS AT BLACKBOARD. DRAWING AND CLAPPING RHYTHMS WITH ATTN. TO RESTS	
CAMERA 1 MCU MR. GARCIA AT TABLE	5. REQUEST SONGS:	KEY OF ___ TITLE AND PAGE ___ KEY OF ___ TITLE AND PAGE ___

This type of script requires a little discussion with the camera crew and A-V Coordinator prior to the program. It also requires the television teacher to have worked out the program thoroughly in his mind to keep the program coherent and well-paced.

Role of the Audio-Visual Coordinator

It is necessary for the television teacher to work closely with the A-V Coordinator for a variety of reasons. The A-V Coordinator prepares many of the "visuals" that are used on the music program and has to receive the programs well in advance of the actual lesson.

The Coordinator also compiles a pamphlet of the coming week's television programs for the classroom teachers. This informs the teachers of the format of the lesson and lists the materials the class will need and also suggests a follow-up procedure when needed.

I type the lesson plan which the teachers receive, plus listings of "visuals" that are needed for the program. I give these to the A-V Coordinator from one and one-half to five weeks prior to an actual program to avoid confusion and errors as much as possible. Here is a sample listing of what this might involve for a lesson:

Grade 5

Monday, Oct. ___ Lesson 9

(This section goes to the classroom teacher.)

1. Warm-up: Scale and tone patterns
2. Review: "Sacramento" p. 105
3. Music Fundamentals:
   A. Note Values – Students will need a sheet of staff paper on which to practice drawing notes.
   B. Distribute Music Fundamentals sheet #3 to students for placement in their music notebooks.
4. New Song: "Old Kentucky Home" p. 32
5. Recordings by Stephen Foster
6. Requests: "De Glendy Burke" p. 54
   "Oh Susanna" p. 112
   "Camptown Races" p. 132

Visuals:

(This section enables the A-V Coordinator to have materials prepared and assembled.)

1. Blackboard
2. Obtain from Mrs. Bradley her picture of the southern home where Stephen Foster wrote "Old Kentucky Home."
3. Pictures of minstrel men, to be shown during the playing of "Nellie Bly" and "Ring, Ring the Banjo."
4. Make ditto copies of Music Fundamentals sheet #3 (see attached sheet) to be placed in the students' notebooks.

* * * * * * * * * * *

The classroom information in the preceding example is self-explanatory, but I might clarify some of the information in the visuals section.

The A-V Coordinator has a picture file which meets many of my demands for matching pictures appropriately with various songs or recordings. Often, when pictures are not available, the Coordinator or a student-helper will draw the required "visual."

The Music Fundamentals sheet I refer to is basic information that I feel the students should have as a reference in their music folders. I refer to the sheets by number whenever I utilize them on a program. I draw up the originals and give explicit instructions for their duplication. Oftentimes the person who types the ditto master is unfamiliar with music terminology and notation, so there is a possibility of errors, and it is a good idea for the television teacher to check the ditto master before the copies are made.

In some programs the visual aids might consist of "flip cards" showing the various notes and rests, a map of the world on a scale appropriate to good televising, or simply a blank piece of paper and a felt-tipped pen. The assistance of the A-V Coordinator in assembling these materials is indispensable to the television teacher.

Role of the Classroom Teacher During the Television Lesson

The classroom teacher also can make a decided contribution to the program and her role in televised music is more than just a passive one. She is the one who is in control of the classroom. I may request that desks be cleared and that the children sit properly and form the vowels properly, but the classroom teacher is there to emphasize and remind the students who forget these points. The classroom teacher creates interest in the class by showing interest in the program herself. There is a direct relationship between the importance the teacher attaches to the program and the importance the students attach to it. The teacher has the task of dividing the room into various sections for two- and three-part rounds. The teacher chooses the leaders for part-singing, or if she feels capable, can lead a part on her own. The teacher gives out materials and collects tests and makes herself an essential part of the television program. Bayless School also uses forms through which the teachers evaluate the television program. Whenever I have tried something new on the program, I make a point of checking personally with the teachers in order to get their opinions as to its clarity and acceptance by the class.

Presenting the Television Lesson

The televised music program at Bayless is conducted without a rehearsal, due to time limitations. I do have approximately twenty to twenty-five minutes (depending on the day) to check the materials, arrange my notes, place the tape at its proper number on the tape recorder, get the proper phonograph records ready, and "talk over" the program with the camera crew and A-V Coordinator. My lesson officially starts at 3:00 p.m. and ends at 3:25, but we usually start a recording two or three minutes prior to the program. The recording usually has a direct relationship to the lesson and helps to prepare the students for the lesson. In order to make clear the format of some of the music television lessons, I am including three scripts that were used this year in the 5th and 6th grades.

Lesson 10

Grade 6

Record: "Man's Earliest Musical Instruments"

CAMERA 1 MS
MR. GARCIA
AT BLACKBOARD

(RECORDING OF DRUM MUSIC)

STAND NEXT TO BLACKBOARD

Last week I spoke to you about the history of the drum. I spoke of the drum as being a universal instrument . . . an instrument that just seemed to "spring up" in widely scattered parts of the world, and an instrument whose origin can't be claimed by a specific country.

Today I would like to demonstrate various drums. I am going to broaden this demonstration to include a variety of percussion instruments. The word "percuss" means to rap or strike, so an instrument which produces a tone by being struck belongs to the percussion family.

It might surprise you to learn that the piano is classified as a percussion instrument.

The Percussion Family can be divided into two basic groups, the Membranophones and the idiophones.

CAMERA 2
CU BLACKBOARD

1. Membranophones (PLACE WORD ON BLACKBOARD) Membrano means thin skin; phono is Greek for sound. All of the percussion instruments which rely on vibrating skins for their tones would be placed in this group – drums.

2. Idiophone (PLACE WORD ON BLACKBOARD) Metal or wooden bodies which produce vibrations or sound when struck are placed in this group:

CAMERA 1
MCU MR. GARCIA

Cymbals, bells, xylophones, claves

Percussion instruments are sometimes divided into pitched and non-pitched instruments.

Pitched instruments can be tuned to a distinct sound. (even vibrations.)

Non-pitched instruments – indefinite sound – Irregular vibrations.

As I demonstrate each instrument, I will specify whether it has a definite pitch.

CAMERA 2
CU
TAMBOURINE

1. The first instrument is the tambourine. This single-skin instrument was one of the earliest forms of drums. DEMONSTRATE FINGER ROLLS, THUMB ROLL.

CAMERA 2
MCU THEN FS
TO SNARE

2. Tom-Tom

CAMERA 1
CU SNARE

3. Snare Drum (DEMONSTRATE SNARE STRAINER) Plastic drum heads are becoming increasingly popular (due to weather problem.)

CAMERA 2 MS
FS TO
BASS DRUM

4. Bigger Brother, field drum

5. Bass Drum. Striking area.
A. Typical beat
B. Two types of roll

Thunder effects, cannon effect, general reinforcement of orchestra.

FS TO
TYMPANI

6. Tympani. The only member of the membranophone group that is tuned to a definite pitch. It is the most important member of the drum family in the symphony Orchestra.

CAMERA 1
CU PEDAL
MECHANISM

EXPLAIN FUNCTION OF THE PEDAL IN GLISSANDI AND QUICK CHROMATIC CHANGES. Big tympani gets the deep sound; the small tympani, the higher sound.

FS TO TABLE

A percussion instrument which belongs to the idiophone group is the cymbal. Sizes range from tiny finger cymbals to the large ones 26 inches in diameter.

DEMONSTRATE CYMBALS – MALLETS – GLANCING BLOWS AND QUICK CUT-OFF. The most highly prized cymbals were made by one family in Turkey. This family emigrated to the United States and continues to excel all other cymbal makers.

FS TO CHIMES
CAMERA 1 LS
DOLLY IN

1. Chimes (originally regular bells, now tubular chimes. Change-over occurred at the end of the classical period – approximately 1800)

FS TO BELLS

2. The Orchestra Bells, sometimes called the Glockenspiel

FS TO MARIMBA

3. Marimba – wooden bars, fixed resonators. Lower pitched version of the xylophone. Sustain tone by tremolo or rolling effect.

CAMERA 1 LS
DOLLY IN
MCU

4. Vibraphone. EXPLAIN DAMPER MECHANISM. Popular use in dance and jazz, but has been used by some of the more modern symphonic composers.

MS MR. GARCIA
FS TO DRUM SET

For the last demonstration I am using a combination of drums that is standard equipment with all dance drummers around the country. The average dance orchestra cannot afford to hire an individual musician for the bass drum, snare drum and cymbal, so one man plays them all. DEMONSTRATE

The beat of the drum has always been fascinating to people of all ages, races, and nationalities. I hope I have helped to increase your interest and knowledge of this oldest of instruments. FINISH PLAYING.

(Some of the instruments for this lesson were set up by the high school helpers prior to the program.

Script 2

Grade 5

Lesson 6

Records: "John Henry"
"Rock Island Line"
Tone patterns
Draw notes on blackboard as per script

CAMERA 1 MCU

START RECORDING
MR. GARCIA SITTING AT TABLE

CAMERA 2 CU TONE PATTERNS	Warm-up, tone patterns and scales. (HOLD "FLIP CARDS")
CAMERA 1 MCU MR. GARCIA	Review Song: Key C "John Henry" p. 144 John Henry was a Negro railroad worker. Oftentimes the Negroes had a tendency to sing the third and seventh tone of the scale a little flat when it occurred in a song. This song "John Henry" illustrates this type of singing, which is known as the "blues." DEMONSTRATE THESE FLATTED TONES BY COMPARING THEM WITH A MAJOR SCALE. DEMONSTRATE THIS BLUES FEELING BY SINGING SONG PHRASE WITHOUT THE LOWERED NOTE. These flattened notes are typical of all blues tunes and they add intensity to the song.
CAMERA 2 CU PICTURE OF TRAIN	Review Song: Key F "Rock Island Line," p. 124 2-part song (USE RECORDING)
CAMERA 1	Music Fundamentals. Today I would like to continue our review of drawing notes. Have your staff paper and a pencil ready and I will tell you what to draw. Space your notes properly and do not crowd them all together. First draw a treble clef and a 4/4 time signature on the staff. Now draw a half note in the first space; now draw a half note in the second space. Next, draw a half note on the first line, and, finally, draw a half note on the second line. As most of you know, a stem on a note may point up or down. When it points down, the stem is on the left side of the note. Now, how can you tell when the stems should point down or up? (PAUSE) I can see that some of you remember. The third line is the dividing line. Notes on the third line have their stems pointing either up or down. Above the third line the stems point down; below the third line the stems point up. Now draw two quarter notes on the fourth line, (PAUSE) and two quarter notes on the fifth line of the staff.

CAMERA 2
CU OF BLACKBOARD

When you have finished, check your notes with the ones I have drawn on the blackboard. (DRAW THE NOTES PRIOR TO THE LESSON.)

CAMERA 1
MCU

Since tomorrow is Columbus Day, I thought we would sing a song that commemorates his achievements. Columbus wasn't the first person to believe the world was a sphere. In fact, a Greek geographer in the year 200 B.C. had the same idea. Still it took a lot of courage to set out and try to prove this idea. So we will sing this song in honor of Columbus, who sighted land on October 12, 1492, 470 years ago.

CAMERA 2 CU OF
SAILING SHIP

"Three Little Ships" key C, p. 124

CAMERA 1
MR. GARCIA

I enjoyed singing with you today.
PLAY RECORDING OF "JOHN HENRY."

* * * * * * * * * * *

Script 3

Grade 6

Recordings: Calypso by
Harry Belafonte
, "Panamam Tombe"
"Banana Boat Loaders"
Small tomtom

START RECORDING

CAMERA 1
MCU MR. GARCIA

MR. GARCIA SITTING AT TABLE
Warm-up (vocal exercises)

We will start our songs with a request from Mrs.____________'s class. Key of____, Title and page ______________ .

Sing

Now let's review "Panamam Tombe" on page 194. I will play a recording to give you some support.

CAMERA 2 CU
OF APPROPRIATE
PICTURE

Sing

CAMERA 1
MCU MR. GARCIA

Now turn to page 111 and we will learn a new calypso song. "Banana Boat Loaders."
PAUSE

This song is actually **a work song;** Just as negroes used to sing while loading cotton, or the sailors would chant and sing when pulling on the ropes to hoist the sails, so did the Jamaicans sing as they loaded bananas. Singing helped to overcome the tediousness of doing the same job over and over, and it also helped to set a rhythm with which to work.

When I play the recording of "Banana Boat Loaders" follow the words in your book. Watch out for the repeat signs that I spoke about in the last lesson. Also notice that the verses are numbered, and you will have to sing the last two lines three times. One time each for verses 4, 5 and 6.

Do you see the abbreviations at the very end of the song? It says D. C. al Fine. Can anyone tell the class what that means? PAUSE I am sure some of you know. The D. C. stands for Da Capo which literally means to go back to the head of the music or the beginning, and sing until you come to the word "Fine" which is the Italian word for the end.

CAMERA 2 CU
APPROPRIATE
PICTURE
CAMERA 1 MS
MR. GARCIA

Now I will play the record. PLAY AND LET THE STUDENTS FOLLOW THE WORDS.

This is an easy song to learn because there is so much repetition of the phrase "day is breaking, I want to go home." Be careful of the syncopated rhythm at this point. TAP OUT RHYTHM. TEACH SONG BY ROTE, A PHRASE AT A TIME.

CAMERA 2 CU
APPROPRIATE
PICTURE
CAMERA 1 MCU
MR. GARCIA

Now let's sing along with the recording from the beginning. PLAY RECORDING

Just to be sure you understand all of the words you are singing, I will clarify a few that might be troublesome. The "hand" referred to in the song is the name given to a cluster of bananas that are attached to the stalk. A stalk could have from seven to as many as 18 hands or clusters, and you can figure approximately 8 to 20 bananas per hand. The "tallyman" counts the "hands" to estimate the weight of the entire stalk.

104

CAMERA 2 CU
APPROPRIATE
PICTURE
CAMERA 1 MS
MR. GARCIA

Now try the song once more from the beginning. SING AGAIN. USE RECORDING.

I think you have the flavor of the calypso music, so listen carefully SING. TAP RHYTHM ACCOMPANIMENT ON DRUM.

The 6th grade they sure sing so fine,
They also are so smart of mind,
And so I ask them next time please,
Make up some songs from the West Indies.

I would like anyone who feels he can make up a calypso tune and sing it, to write out a verse or two. Don't write more than two verses. The lyrics can have a serious theme or they can be humorous. For example: SING

I know a boy from the gym class
He thinks he is so very fast
But when he raced for the basketball,
All he does is trip and fall.

If you decide to write a calypso song, put your full name and your room number on the paper and give it to your teacher on Friday. PAUSE

SING
I so enjoyed this singing time
I like your melody and rhyme,
You sang the songs without a squeak
I'll see you all for sure next week.

PLAY BELAFONTE RECORDING

* * * * * * * * * * *

Occasionally, I choose some students to assist me in various ways with the television lesson. They might join me on the program and answer questions pertaining to music fundamentals. A few times I have used one or two students to lead part-singing. As mentioned in the preceding script, I asked the 6th grade classes to make up some verses to a calypso melody. The teachers selected one pupil's verse from each room, and the pupils chosen sang their verses on my next television lesson. At Christmastime I had the entire Elementary Chorus appear on camera for a few vocal selections. The students that appear on television really enjoy the honor, and their classmates in the rooms equally enjoy seeing their friends on television.

At various times during the school year I am allowed to have a longer period of time to present special lessons. One special lesson always precedes each St. Louis Symphony Concert for school children. This lesson is usually forty or forty-five minutes in length. The main idea of the lesson is to give the students a chance to hear some of th music that will be performed at the symphony concert. I also use thi lesson to acquaint the students with the instrumental and seating a rangement of the symphony orchestra through the use of visual charts an cut-outs of the instruments of the orchestra. At the last concert preparation lesson I was able to use a string ensemble from our senior hig school to demonstrate the string instruments and to play a selection fo the students. Another special forty-five minute lesson was the previously mentioned Christmas program. I have approximately 125 television lessons per year, and only a few of the lessons exceed twenty-five minutes

Television Techniques

During the actual televising of the lesson, you can present the program as if you actually had a live group in the room. Speak as if you could see and hear each student. Keeping your attention on the camera as much as possible is an aid in helping you to project or get in rapport with your viewers. This point is stressed by many people writing articles about television. An article in **School and Community** states it in this manner: "In television the teacher on the screen usually looks directly at the camera, and therefore appears to be looking at every child in the room."[3] Too many glances off-camera tend to be distracting to the audience.

A little care and attention to your dialogue can minimize the fact that this is a mechanical method of teaching. For example, it helps to smooth the camera man's job when you give him a lead-in line, such as, "Let's go over here to the blackboard." But it would insult his intelligence and also focus attention on the mechanical aspect of teaching by saying, "Now, if the camera will focus on the blackboard."

It has been my experience that adlibbing should be kept to a minimum in televised programs. Digressing from the script in the television lesson gives the impression of disorganization. Furthermore, unexpected inserts on your program can confuse the camera man.

I have mentioned the technical crew several times, but I have not specified how many we have in the group. The technical crew consists of two camera men and a sound man who is also responsible for seeing that the correct picture is on the monitor. The camera men and sound men are senior high school students who volunteer for this work during their regular study hall periods. The A-V Coordinator instructs the students in the use of the television equipment. Although an occasional mishap may occur during a lesson, I feel that generally the high school students are capable and are doing a good job. Maintenance work is done by the company that installed the television equipment.

How Television has Affected my Teaching

Television has brought about several changes in my teaching procedure. I have always kept lesson plans for my different grades, but they were always in a sketchy outline form. Writing complete television scripts has helped me to organize my thoughts and methods of teaching in a more concise, understandable way. If you are writing about some aspect of music fundamentals, any lack of clarity in your presentation shows up more readily in written form than it would in verbal form. If an idea seems ambiguous in its written form, you can be sure that the television calsses will not grasp the true meaning. I believe that the ideas presented over television have to be stated with extra clarity in order to promote understanding.

The television lessons have led directly to an increase in my usage of tape recordings and phonograph records. I make tape recordings of various rounds and part songs to enable the students to hold their part in new or different songs. I will sing one part of the song while the tape helps to carry one or two other parts.

Television, which is based on a visual approach, sometimes requires the classes to rely upon themselves more heavily than would normally be expected. For example, when I have the television classes clap a rhythmic figure, I realize there is a tendency to ape my movements rather than to read the rhythm from the book. To make sure this aping of movement does not occur, I give very limited assistance to the classes.

The realization that I have to under-assist in my television classes has affected my regular classroom teaching in the lower grades, particularly in grade 4. If support is forthcoming at relatively frequent moments in the 4th grade and then practically ceased in the 5th, it can be readily seen that problems are going to arise. Consequently, I have intensified several aspects of my program to make doubly sure that understanding is reasonably complete. When the lower grades, especially the 4th and 3rd, sing tonal patterns or chant rhythm patterns, I try to stress the idea of self-reliance as much as possible.

Being a television teacher has also affected my choice of clothing. Certain colors televise better than others, and I find myself deviating from my traditional black and navy blue suits to lighter colors, such as grays and browns. Generally, it is not too good to wear clothes with strong contrasting colors, such as a black suit and a white shirt. They tend either to "flare" or "burn in" when the camera focuses on a person for any length of time. "It is a general rule that pastel shades are safest. Off-white shirts, pale blue, gray, or tan, are less likely to trouble engineers; light-colored dresses are more becoming to most girls than dark ones. Shiny metal tie-clips can cause trouble. So can flashing bracelets...."[4] No special make-up is required for any of our television teachers.

Difficulties Encountered and Their Possible Solutions

Some difficulties have arisen through the use of televised lessons which music teachers do not normally have to contend with. Undoubtedly the biggest difficulty is the lack of audio return. When I hold up a tonal pattern, are all of the classes singing? Are they singing correctly? Just where is this or that particular class having difficulty in this song? You can have many doubts when you do not hear the results. I have tried to combat this problem in several ways. I look for the likely trouble spots in the songs, and either assist at that point or make the students especially aware of the difficulties involved. At times the A-V Coordinator makes quick trips through the halls to double-check the results and gives me signals so I can comment appropriately. The Coordinator has made tape recordings of the singing in some of the classrooms and I listen to the results when I get a chance to play them back. I also consult with the teachers frequently. But all of these solutions are only partial solutions at best.

Another difficulty occasioned by television is the lack of interplay and personal contact with the students. Our foreign language television teacher has approached this particular problem by combining her television classes with regular classroom visits. At present my schedule does not permit this arrangement, but it is likely that I will attempt to include classroom visits in my television teaching schedule in the 1963-64 school year.

The fact that television is basically a visual approach while music is basically an appeal to the aural senses creates another problem. Several articles have been written which discuss the pros* and cons* on this topic. The basic premise of one group is that camera shots often distract our attention from the main musical goal which is to listen attentively. This would apply to educational television mainly in the listening lesson or so-called music appreciation lesson. I feel that this problem is not insurmountable. It can be solved by limited and judicious use of the available camera shots. An "itchy camera finger" could be a detriment to any program.

Television lessons also involve an increase in home-planning for the teacher. Making scripts and preparing some of the visuals is time-consuming. In addition I make tape recordings of my voice to utilize as an aid to the classes in singing part songs. In my opinion, television classes involve much more homework than would be necessary for successful teaching in a classroom situation. In this respect I feel it is necessary to state that this increased work load can lead to a serious problem. Many music teachers serve in a dual capacity. They are often required to teach elementary vocal music in the grades, plus choral groups and instrumental groups. The danger lies in the additional work load caused by television. In his desire to produce a truly educational music program with a limited number of personnel, the music educator frequently fills up the school time that was supposedly saved through the use of television. The pressure of too great a work load can be detrimental to the teacher's mental outlook as well as causing poor teaching in some areas of the music program. This overburdening could easily become the "norm" expected of music teachers by their principals and superintendents. Although I am a music teacher, I feel these thoughts would apply equally to a television teacher in any field. I believe that successful television teaching will necessitate additional school time being made available for planning.

Advantages

The biggest advantage of Educational Television as far as my music program is concerned is the fact that I can reach 180-200 fifth grade students in a twenty-five-or thirty-minute period. To visit these students in a classroom situation would require approximately three hours of my school time. Prior to the use of televised music lessons, it was practically impossible to reach the 5th and 6th grades with the regularity that is necessary to develop a music program.

Television has also helped me to be more concise and better organized in my teaching procedures.

Possible Effects of Financing Television

Educational Television is a definite force to reckon with in the general teaching field. I have read many articles stating that television lessons are a teaching aid and not a replacement for the teacher. This statement seems correct. But unfortunately in some fields, including music, television will have an adverse effect on the additional hiring of music personnel. The school population is growing, but this growth will probably be accommodated by enlarged use of television rather than by increase in personnel. Several interesting articles have been written which pertain to this subject. Here is an interesting quotation from a booklet by the Ford Foundation:

> "Hagerstown school officials believe that if the total cost of operations and transmission can be held below $350,000 per year it may be possible to meet the costs of their new method of instruction through savings in the teaching staff, in instructional equipment, and in the more efficient use of classroom space."
>
> "So far, the clearest saving in staff time has been in the junior high schools, where seven fewer teachers than would otherwise be needed have been used with the 1,500 boys and girls enrolled in the large classes. This saving in staff time has been used to reduce the student-teacher ratio in other classes. A different kind of saving has been effected in the elementary-school program, where art and music were added to the curriculum through the use of only three teachers and a half time of a fourth. To have done this without television would have required thirty-four teachers. In terms of teacher salaries, $171,600 in instructional benefits was obtained for $17,680."[7]

Comparative Effectiveness

There has also been a fair amount of discussion among educators in trying to ascertain the relative value of television learning as compared with classroom learning. I have read various research papers which cited that in a specific field of learning, such as mathematics, both ways of teaching result in an equal amount of learning.[*] I have also read generalized statements to the effect that students taught through television achieve as much or more than students who are taught through conventional methods. However, some writers, one being Dr. I. Keith Tyler, Professor of Education at Ohio State University, feel that proper research is woefully inadequate. Dr. Tyler states: "If I were to characterize the present situation with regard to teaching by television, I would say that we have gone a very long way in making use of television as a part of the whole process of instruction on the basis of relatively little research evidence. That is to say, there have been innumerable studies connected with the use of television, but the great bulk of these has been repetitious, extending very little our knowledge of its advantages and limitations."[*] Dr. Tyler seems to think that most research which compares television classes equally or favorably with the regular classrooms has stressed the learning of facts or some specific skill which is presented to the students. There is more to the educative process than just telling and showing something to a student. I am sure most educators would agree with that statement, yet in the majority of comparisons of televised classes and regular classes that I have read, the emphasis is on specific facts and figures. Dr. Tyler feels there is a need for research which evaluates the two methods of teaching in areas such as creativity, inventiveness, leadership, critical thinking, initiative, attitudes, and values.

My personal opinion, at this stage of my teaching, is that I can do a better job in the classroom than is possible through the use of television. There are several factors which have forced me to arrive at this conclusion.

I feel a need for more freedom than is allowed on a television lesson. When a tangent thought or event occurs in a classroom which could lead to increased understanding or motivation, I am free to let the idea develop; I can pick up my prepared lesson at another time. In a television lesson the tangent does not occur. The lesson is completely programmed, and interaction is nonexistent or at best very limited. I believe that learning is a two-way street, and I feel that a considerable amount of my professional growth has come from personal contact with the students and teachers in a classroom situation.

I hope that my experiences in television teaching will prove of value to others. I am sure that many of you share my curiosity concerning the eventual role of television in our educational system. I believe the major factors that will decide the route that Educational Television will take in the future will be the economics involved in long-range television usage, plus extensive and varied evaluations of the medium.

APPENDIX

Terminology for Video Effects

TYPES OF SHOTS:

Angle Shot – A camera technique in which a scene or object is shot from an unusual angle, such as an abnormal side view, down from a high boom level or up from a low boom level.

Close Shot – A shot taken at close range, also called a close-up. CU

Dolly Shot – A take which involves moving the camera while it is on the air. DS

Follow Shot – The camera follows the performer, action or scene. FS

Long Shot – A shot taken from a distance far enough away to include a complete view of the scene. LS

Medium Close-up – A waist-high camera shot, used for action scenes when faces of performers are to be seen clearly. MCU

Medium Shot – A shot taken by the camera from middle distance, or from knee level to above the head of the performer. MS

Pan Shot – Shot in which the camera is panned of a horizontal plane, whether to the left or to the right. PS (The scene must remain static.)

Tight Close-up – A head shot, used to show facial characteristics and reactions of a performer. TCU

Truck Shot – A camera technique by which a scene is covered by dollying the camera along the line of the scene while it is on the air.

Zoom Shot – A shot in which the camera is zoomed, or moved, in or out of the scene very rapidly.

Dolly in – To move the camera in for a closer shot.

Dolly out – To move backwards from a close shot to a position further away from the object, person, or scene.

Pan – To move the camera from left to right, or right to left while following action.

Tilt – A camera technique by which additional portions of a scene's area are shown by aiming the camera vertically up or down.

Footnotes

1. Richard G. Nibeck, "A Progress Report on Missouri's Statewide ETV Network", *School and Community*, January, 1963, p.8
2. For terminology for video effects, see Appendix.
3. Jacqueline C. Baulick, "Coordinating Television and Classroom Teachers", *School and Community*, October, 1962, P. 23
4. *Youth Discussion on Television*, a pamphlet published by the Junior Town Meeting League at Wesleyan University, 1953
5. Paul Herlinger, "Music on Television – Another Viewpoint", *National Association of Educational Broadcasters Journal*, September-October, 1962, p. 18

6. Martin P. Busch, "Music on Television – One Viewpoint," *NAEB Journal*, September-October, 1962, p. 14

7. *Teaching by Television*, A Report from the Ford Foundation and The Fund for the Advancement of Education, May 1959, p. 45

8. Wayne M. Carle, "Needed Research in School Broadcasting," *Educational Research Bulletin*, Vol 38, No. 5, PP 120-130, May 1959. Quoted George Anderson and Abram Vandermeer, "A Comparative Study of the Effectiveness of Lessons on the Slide Rule Presented Via Television and in Person," *Mathematics Teacher*, XLVII, pp 323-327, May 1954

9. I. Keith Tyler, "What Research Does Not Say About Teaching By Television," a paper delivered at a group session of the ninety second annual meeting of the American Association of School Administrators, Atlantic City, February 16, 1960

A REPORT ON THE FORD FOUNDATION YOUNG COMPOSERS' PROJECT IN UNIVERSITY CITY, MISSOURI

DEXTER G. MORRILL
University City Public Schools

Dexter G. Morrill is Ford Foundation Composer – in Residence at University City public schools. He is a graduate of Colgate and Stanford Universities and has studied composition with Leonard Rattner.

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The Young Composer's Project was initiated four years ago by the Ford Foundation as one of its many programs in the Humanities and the Arts. Since that time, forty composers have been placed in over twenty five school systems throughout the United States, to compose works for musical organizations in those systems. The resident composers have not been required to teach in any capacity, so that their full efforts may be devoted to composing, rehearsing, and performing their music. The Project's objectives are to promote the development of young composers, to acquaint music students with the active process of musical composition, to produce music which might become a part of the secondary school music repertoire, and to condition performers and listeners in the high school community to serious twentieth century music.

Undoubtedly, a composer is most excited by the opportunity to devote himself completely to composition, without having to seek additional employment. For this reason, the project is certainly a distinctive one, since there are so few substantial opportunities for composers in the United States today. Commissions, prizes and publishing are not out of the question, but for an unknown composer they are, by no means, sufficient in quantity and size to pursue on an occupational basis.

Since the project is essentially a co-operative one with secondary music education, obviously it does not meet the needs of all young composers. For its use in music education, the music produced must somehow lie within an intangible boundary of difficulty. To some young composers, this intangible boundary of musical difficulty would represent a great obstacle in the path of their natural creative development. Likewise, the project is impractical in a system where musical organizations are without a fairly well-rounded instrumentation, or lack considerable performing capabilities. These two very general "requirements," if I may call them that, account for the only natural restriction or limitation that the project may have. I am much more interested in the tremendous amount of compositional experience that the project makes possible than the limitations mentioned above. Every composer is concerned with ideals in performance, but those same ideals are totally impossible if a composer is first unable to write because his occupation does not permit it.

There are several unusual advantages in the composer-school relationship. First, the composer has an immediate outlet for his music and is assured of one or two performances of each work in the near future. Second, the students are afforded a firsthand discussion of the music, as well as an acquaintance with the entire process of music production. Third, the composer is in an excellent position to compose up to the full playing capacities of the groups due to his awareness of their individual strengths and weaknesses. By favoring the stronger players in his writing, he will often be able to achieve more with the groups than they ordinarily can achieve with published music. Just as the project makes these advantages possible, it also demands a greater effort on the part of the composer and musical staff for fulfillment.

Having spent a year in University City, I am inclined to believe that the main value of the project to the school system is a long term one, involving the gradual education and development of student interest in contemporary music. Inasmuch as the greatest amount of time is spent in rehearsals, they will definitely outweigh the performances in educational value. I should not hesitate to concede that school music groups are primarily training organizations. I have come to the realization that a contribution on my part is made in a training capacity.

General Considerations

The resident composer is confronted with two tasks in addition to his main function of composing music for the school groups. The first and most immediate task involves the communication to the students of the stylistic features in his music, and solutions to the more technical problems that they may encounter. The second task is less musical in nature and involves the actual conditions for his work in the school system.

Perhaps the most crucial factor in the composer's environment is the co-operation and active interest of the school's music directors, who in their daily work reflect their interests and goals. Without a display of genuine interest on their part, a resident composer would have a most difficult time convincing students that his music merits attention. The situation can be enhanced by making a sincere attempt to understand the directors' work in the music department, as well as their problems in rehearsing the music. It is hardly fair to expect directors to sustain an interest in a composition without, in turn, showing an interest in their work. The composer should attempt to play a fairly active role in the school music program rather than remain aloof from the institutional demands with which school music directors are confronted.

A less tangible factor in the working conditions is the general student's desire to accept the musical challenge put before them. Again, the directors play a large part in helping the groups to accept and maintain an interest in the music. With this project, student maturity is infinitely more valuable than technical ability alone, although the latter

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is certainly important. A mature attitude seems to be determined by the quality of the whole education that they receive as well as the cultural opportunities and musical guidance that are offered them. Student response will also be improved if the composer is able to make frequent personal contacts with the students, discussing their problems with the music and their general interests in music.

The musical problems are magnified when there is not ample time for preparation of a work. If the work is difficult, the group will need several rehearsals just to familiarize itself with the entire piece before rehearsing it in detail. We have found that it is best to proceed slowly with a more difficult work, spending only fifteen or twenty minutes with it during the first few rehearsals. With two or three months to prepare an average size work, this type of gradual approach is ideal. It means that the important matter of group familiarity can be dealt with before any particular emphasis is placed on the musical detail. The time problem can be reduced appreciably if the composer is able to finish a work well before the performance date. Spreading his work equally among the available groups is also helpful.

With the existence of the above-mentioned favorable conditions of director co-operation, student interest and maturity, and ample time for rehearsal, the composer will be able to concern himself more completely with the task of composing and rehearsing his music. These favorable conditions also contribute to his security, and help to determine the quality, difficulty and scope of his work.

Musical Problems

For the sake of brevity, the discussion below is limited to the problems encountered with instrumental groups; vocal and instrumental problems vary considerably in contemporary performance. Most of the students' problems in playing contemporary music can be traced to a general lack of familiarity with the style, or more specific performance details. Since students cannot be expected to have an acquaintance with many contemporary styles, it is important that they be given ample time to digest the qualities of sound and musical motion that the style displays. We have found that a detailed description or analysis at the early stages of rehearsal is seldom helpful and perhaps confusing. The following characteristics in contemporary composition seem the most difficult for students to grasp:

1. Essentially non-tonal harmonic material.
2. General aspects of the compressed texture; short melodic units with wide intervallic leaps; disjunct or pointilistic texture.
3. Rhythmic irregularity.

These characteristics may exist in varying degree with each work, and certainly all of them may not be troublesome in one composition.

I am not convinced that comparing all contemporary characteristics to characteristics of earlier styles is effective in a rehearsal discussion, because the comparison will often be a negative one at best. A more positive approach will depend on the composer first explaining his choice of materials for the composition. (By materials, I mean the musical substance in a composition: the specific sounds, note values, melodic shapes etc.). He should point to the need for limiting the amount of material in any one composition for the sake of consistency. If possible, he should also attempt to show to the students that the success of a composition is more nearly due to the handling and working of that material, rather than the selection itself. At this point, a comparison of the consistent use of materials in a contemporary work and an earlier work is meaningful. By focusing the student attention on the selected materials and their consistent use in the composition, rather than the omitted materials, they will be more capable of understanding the composition on its own terms.

Students must agree to the composer's terms in listening and performing if they are eventually going to understand the music. Above all, the composer must convey his complete commitment to the materials and techniques that he employs. For example, he must convince students that musical sound, in any harmonic form, is valuable for its own sake, and becomes a musical premise with consistent use in any one composition. Therefore, it is the compositional treatment of that sound that is most crucial in a composition. Any explanation or rationalization of the musical sound or materials in technical or theoretical terms is subordinant to their establishment as a premise, and is certainly less meaningful to secondary music students.

Non-tonal Harmonic Material

Without exception, composers shape the kinds of harmonic material that they enjoy. If that material is particularly dissonant to students, then a greater amount of time will be needed for gaining a familiarity. There are absolutely no shortcuts. In most cases, a reaction to rather dissonant harmonies is caused by an uncertainty with the intervallic relationships rather than with the quality of the total sound. The uncertainty with the intervallic relationships in the harmonies and even the relationships on the horizontal or melodic plane are also due to a lack of a patternized harmonic "progression." Often a clear "harmonic progression" is simply not present. What seem to be simple intervals in playing traditional music now become treacherous intervals in a non-tonal composition, because a harmonic progression is not easily discernible, or is not present. Students will play the intervals in a non-tonal piece accurately if they are able steadily to increase their awareness of the relationship between their part and the rest of the harmonic material. In short they must continually strive to sharpen their skill in measuring intervallic distances.

A clear understanding of non-tonal harmonies is dependent upon theoretical knowledge, as well as a thorough acquaintance with the intervallic details. Since few secondary students have any theoretical background, it seems impractical to depend on theoretical explanation and analysis in rehearsals. It would be nearly impossible for a composer to overcome this lack of theoretical background, and so he should be content to achieve a partial understanding through a gradual development of familiarity. Previously, I stated a need for the establishment of a musical premise in teaching the style of a piece. Regardless of the complexities of the harmonies, most compositions are consistent in a harmonic respect, with several "chords," or types of "chords," appearing frequently. A reference to this harmonic consistency can be made in quite non-technical terms. This pointed reference will help to affirm the harmonic premise. It will also indicate that non-traditional harmonic units can have a very stable role in a contemporary composition.

Aspects of the Compressed Texture

Many contemporary styles are essentially compressed, characterized by relatively disjunct or pointilistic textures, wide melodic leaps, and a great variety of musical fragments. The overall compression demands a greater focus on the small musical unit than is necessary with a more expansive texture. Since the detail is made more prominent by the composer, the playing problems are naturally increased. In a pointilistic texture, for example, the entrances, dynamics, note values, and ensemble balance are very critical, although a quick glance at the score may give one the opposite impression. Oftentimes the fact that students are given fewer notes to play increases the difficulty of the piece, rather than diminishing it. Wide melodic leaps do cause intonation problems, but the students have even more trouble connecting and phrasing a disjunct series of tones.

There is no simple solution to these problems and, again, familiarity is so important before detailed rehearsal begins. Students often miss the importance of relating their parts to others if these relationships are not carefully pointed out to them. The best opportunities for pointing out these relationships occur where musical fragments are linked together by a similar shape, unison or octave duplication, or common rhythmic unit. The composer and director can certainly deal best with the disjunct or compressed texture by taking every opportunity to illustrate how each musical event relates to the next one, and to the whole piece as a musical event. They must also convey the idea that a piece is only successful when the musicians are able to mold the various fragments into a single recognizable shape that is meaningful from beginning to end.

A repeated reference to each player's delicate role in a complicated texture helps to convince him that he plays an essential part in the musical success of the piece. The tendency of students to treat the simpler passages and larger note values more lightly can have a disasterous effect, because if these detailed errors are compounded there is little substance remaining to make up for the loss. Before working on this project, I was inclined to believe that students would have the greatest difficulty with the more complicated musical passages. I now feel that the reverse is true. Where the music demands such careful treatment of each individual note in the texture, students seem to have the most difficulty in creating a successful performance. Lastly, directors must constantly seek more dramatic playing when the small musical fragments are prevalent in the compressed texture, to make the most of the relatively small, but important, musical moment.

Rhythmic Irregularity

Most students seem to be quite capable of dealing with rhythmic complexities, when those complexities are accompanied by a fairly regular or steady tactus. Perhaps this is due to the influence of jazz and popular music, since both are characterized by a steady tactus or rhythmic pulse. In the case of jazz, the rhythmic irregularities usually ornament a regular rhythmic outline, rather than play a more fundamental role in that outline. When complicated and irregular rhythms are ornamental, they tend, in many cases, to be confined to one part, or at least be complete in some form in many of the parts. If these ornamental rhythms are confined and complete within individual parts, their shapes are more immediately apparent to the players. The visual aspect of the note values and their horizontal placement aid in a clear understanding of the rhythmic shape.

I have encountered the most difficulty with non-ornamental rhythmic irregularities. The more fundamental rhythmic design is implied by all of the elements in a composition, as well as the note values. For example, rhythmic variety or irregularity can be created by the frequency of change so that the rhythmic implications in the harmonies must be carefully explained to the performers. Above all, the fundamental rhythm cannot always be determined by the visual aspect of the note values and their horizontal placement.

Students also tend to overlook the full rhythmic implications of the rest. Matters become more complicated for them when the rest is not merely a part of a regular fundamental rhythm underlying the music, or when the rest enters as a positive rhythmic force. I have discovered that some of the simplest rhythmic units provide a great stumbling block in rehearsals if the shape of these simple units is determined by the note values and rests, without a convenient backdrop of rhythmic regularity. Too often, students feel that regular rhythmic backdrop is implied if it is not present, and their dependence upon that nonexistent regularity creates a great loss in the subtleties of rhythmic variety. The composer and director should carefully explain all aspects of the fundamental rhythmic design, instead of dangerously assuming that students will naturally realize all of the rhythmic implications mentioned above.

Often we are inclined to believe that the solutions to these rhythmic problems are extremely complicated. I have tried to indicate that they are not complicated, and depend upon explanation and a constant return to the rather simple foundations that music training should provide.

I feel that mixed meters are not very workable in compositions for this project, although it would certainly be good experience for ensembles to work with them. The advantage of scoring music in a constant meter is realized in the initial readings, where students are enabled to perform an entire section of a work without continual stops. The disadvantage comes in later rehearsals, when a concentration on accents and ties is needed to realize the actual rhythmic design of the work. The normally weaker beats of the measure may become strong beats if the composer uses a fixed meter. Some time will be required to indicate to the students exactly where the strong beats are located in the measure.

Musical Difficulty

A natural question arises about the composer reducing the difficult features of his writing in compositions for this project. I have answered this question in the following way:

> *When the musical difficulty is due strictly to the playing demands of the material, I am in favor of limiting those demands only because a work must be possible to rehearse and perform. When the difficulty arises from a lack of understanding of the stylistic expression, I am very much opposed to limiting or changing the style.*

If the composer is faced with a limitation, alteration, or reduction of the quality or substance in his natural style, the composition will probably be unsuccessful. It may very well be that he will find it impossible to compose with a severe stylistic restriction placed upon him. The success of a composition depends so much more upon the stylistic expression than the type of material in that composition. Because a composer chooses his material and sets up his musical problem at the beginning of each composition, it is not impossible or necessarily limiting to work with materials that are not too demanding technically. But the style of a piece takes its shape throughout the entire process of composing. Unlike the material in a composition, the style never emerges until the piece is well underway. Moreover, the composer is certainly able to choose quite different material in each composition, but if his stylistic expression is at all mature it will persist in each composition, changing or developing slowly over a period of time.

Finally, there is no substantial reason to limit or restrict a composer stylistically. Students should undoubtedly rehearse music that is within their reach as performers, but feeding them a musical diet of pieces familiar to them stylistically will inevitably stunt their musical growth.

Summary

One could certainly make a case for the Young Composers Project by simply pointing to the need that exists for providing opportunities for composers. It is often hard to believe that the situation could be so unfortunate in such an affluent nation. Composing, to all but the wealthy, is hardly more than a hobby or a student activity, notwithstanding the existence of many university music teachers who are allowed to compose on a part-time basis.

There are many other important reasons why such a project is worthwhile to secondary schools. Most important among these reasons is the fact that contemporary music is excellent training material for young students so far as their ability to perform in older idioms is concerned. It seems fair to assume that students will gain valuable experience by encountering the musical problems discussed above. For example, in playing some compositions with non-tonal harmonic material, they will invariably improve their sense of intonation because the music does not have a traditional tonal frame of reference. It is likely that the improvement made on intonation with the contemporary music will carry over in their playing of traditional music. Likewise, the experience of playing music with a great deal of rhythmic variety is valuable. If the piece is demanding rhythmically and does not provide the performer with a regular rhythmic backdrop or outline, then the loss of this standard "crutch" in playing will certainly speed the players improvement. Again, a carry over to performance of other music is likely. The skills developed in playing contemporary music are certainly not specialized, and are not really very much different than those skills required to play a traditional piece. Contemporary styles call for a special emphasis on certain skills, but the skills themselves are basically unchanged.

Both from a performance and a listening point of view, music education cannot be complete without a strong program in contemporary music to lessen the gap between students and the music of their time. So many students are inclined to believe that composition has its set of rules and conventions which are indelibly stamped upon composers' work in every period of music history. The misconception grows if they are led to believe that the composers are somehow not allowed to set their own limitations or rules in each piece of music. A greater exposure to contemporary music will help to do away with this misconception by broadening student artistic perspective. Music education will be successful when it enables students to sense a quality of "artistic rightness" in the fine art music of all periods.

SIXTEENTH CENTURY POLYPHONY

STEPHEN DORN
Brentwood High School

Stephen Dorn is a sophomore in Brentwood High School, Brentwood, Missouri. The following paper was written for a class in the theory of music taught by Mr. Donald K. Anderson, with assistance from Mr. Wayne Martin, teacher of English in Brentwood. The paper is included as another example of the quality of work which can be done in academic music by interested high school students with proper faculty leadership.

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The years from 1000 to 1600 constitute one of the most interesting of the five broad periods of music. This period of musical development is called the polyphonic period of music. However, in this research, the main emphasis will be on sixteenth-century polyphony. It is here, in the "Golden Age of Polyphony," that the polyphonic music reached its full scope and maturity.

One of the most important factors in the development of music in the Renaissance was the printing of music. Ottaviano Petrucci was first to make music printing popular when in 1501 he used movable type in his printing of his collection of polyphonic music. After Petrucci's first edition in Venice, he went on, and by 1523 he had published fifty-nine volumes. Then in France in 1527, regular publication of music began, later followed by Germany, Netherlands, Rome and other important cities.

The Netherlandish, Belgian, Dutch, Burgundian, and French composers all contributed to this era. Because of the cultural and commercial significance of these countries, their wealth made patronage of the arts possible. The results were: (1) the perfection of countrapuntal devices and polyphony; (2) the perfection of a cappella style; and (3) the perfection of the mass and motet.

Although this paper is chiefly concerned with 16th century polyphony, we find the years prior to 1500 to have a great bearing on sixteenth century Catholic Church music partly because of the Council of Trent and its investigations of church abuses and laxities.

> As far as church music was concerned, the principal complaints heard at the council were about its secular spirit and the complicated polyphony which made it impossible to understand the words; in addition, criticism was voiced about excessive use of noisy instruments in church, and bad pronunciation and general irreverent attitude of the church singers in 1555.[1]

With this impression, the Council was ready to abolish polyphony. However, there is a legend that when the Council was urged to abolish polyphony, Palestrina composed a six-voice mass to demonstrate that polyphony was not contrary to the reverent spirit. This mass which supposedly pacified the Council was later published as the *Mass of Pope Marcellus. (Missa Papa Marcellus)* It was Palestrina's polyphonic style which helped establish that style in the church.

In analyzing the polyphonic period of music, as with any period, we can use seven points. These aspects are rhythm, melody, harmony, form, color, texture, and dynamics. With these seven, we can establish a relationship between the polyphonic period and the four other periods to follow.

Rhythm

The first area to be analyzed is that of rhythm. The mainspring of the whole mechanism is rhythm, which essentially provided for the individuality of the whole melodic pattern. "The whole of sixteenth-century texture is basically an interweaving of independent rhythm, and not (as commonly said) a combination of melodies."[2] However, from my own experience in playing polyphony, I have found that the contrasting melodies introduced by various instruments provide for the rhythmic effect. Also, in polyphonic rhythm, there is a freeness of individual note stress which is accounted for by the lack of meter and bar lines. Because of marked meters and bar lines in modern editions of 16th century polyphonic music, the music loses the freedom on which polyphony depends and only their elimination by the conductor will produce the desired effect.

Melody

The next area of analysis is that of the melody. Because of its emphasis on individual melodies rather than chords, 16th century polyphony should be thought of as mainly melodic or horizontal.

"Sixteenth-century polyphonic works were conceived as patterns of simultaneously sounding melodies. The independence of these melodies was stressed above all."[3] Although these melodies were independent, much of the sixteenth century polyphony was imitative with one voice giving out its melodic line only to be followed by another voice repeating it.

In Palestrina's works, the balance of melodic lines can best be seen when going from one point to another. He moved with a gradual motion with skips being foreign. Also, a balance was maintained by descending and ascending voices. "The line as a whole has been described as a process of conjunct movement beautifully varied by the disjunct intervals which are permitted upon the condition of not continuing in the direction of the leap but immediately returning by gradual motion towards the point of departure."[4] However, the English school had no desire for restraint. "Free and unfettered imagination was given plenty of rein, not through lack of technical skill but because of that spirit of adventure."[5] Because of this, the Palestrina influence appears rarely in English polyphony.

Harmony

Harmony is the next area of analysis. In the beginning of the sixteenth century, harmonic thinking was relatively undeveloped. However, by the end of the century, it developed into one of the most important musical factors. Because of this harmonic thinking, we find that sixteenth century polyphony made its greatest technical development here.

> This new idea of harmonic thinking had been explained by: (1) changes in tonality and scales; (2) composers realized importance of vertical effect; and (3) the awareness of the structural need for phrases and sentences in the lines.[6]

At this changing point, the old linear concept of counterpoint was broken. No longer were fourths and fifths the favored intervals with seconds and sevenths acceptable. By the sixteenth century, seconds and sevenths were dropped and triads and sixths became the preferred intervals. Consequently, as sixteenth century polyphony developed, it relied more on the harmonic support than earlier polyphony.

"As polyphony developed and the number of voices increased, the distinction of their parts became important and an interval technique which would allow individual parts to keep some measure of their identity and yet at the same time form a reasonable euphonic whole with the other parts was necessary."[7] It is possible, then, to see that harmony developed from sixteenth century polyphonic practices.

Form

The next area of analysis is that of form. Although polyphonic form and texture are closely interwoven, they will be separated as much as possible so that the correlation can be seen. I have chosen to discuss three main areas: (1) sacred vocal forms; (2) secular vocal forms; and (3) secular instrumental forms.

First are the vocal forms. In the Catholic Church were two liturgical forms which were the prevailing forms of sacred music. These were the mass and the motet. Portions of the mass, namely the Kyrie, the Gloria, the Credo, the Sanctus and the Angnus Dei, were set to music. The motet was a short polyphonic composition originally based on a Biblical text in Latin, but later using a combination of Latin and the Vernacular simultaneously.

Examples of the motet are found in the works of Nicolas Gombert (1490-1556). His motet *Super Flumine Babilonias* shows: "a series of imitative sentences with interlocking cadences save for a single short contrasting section in triple meter."[8] Another important contributor of motets was Adrian Willaert. In his motet *Victimae Paschale Laudes* he uses the Netherlands style with his melodic lines closely voiced and shorter phrases. The last composer of motets we will mention is Josquin Des Prez, who is by far the greatest musical figure of the early sixteenth century. In Josquin's motet *Ave Maria*, there is rhythmic freedom and a great deal of ornamentation. Also, each phrase is treated separately, which is done usually by imitation.

One other sacred form of music was the anthem. By the end of the 16th century, many Lutheran regions of Germany had returned to the Catholic faith, and the line between Protestant north and Catholic south was established. Soon a new kind of Lutheran polyphonic church music emerged from the north. "The Lutheran-influenced composers treated this music as something sacred and not to be altered to one's interpretation."* The anthem could be accompanied with instruments. However, by the end of the 16th century, this attitude changed. The Protestant, German composers began to use traditional melodies and free artistic creations to which they added their own individual interpretation. Some of the leading composers of this German style were Johannes Eccard, Leonhard Lechner, and Michael Praetorius. Their work established the Lutheran Church music in Germany and opened the road to development that grew over a hundred years and culminated in the works of J.S. Bach.

The second area is that of secular vocal music. This included the monophonic and polyphonic madrigal and other part songs. In looking at this area, many contributions were given by several countries. First of all is the Italian secular music. If one man best represented the Italian madrigal, it would have to be Carlo Gesualdo. In his works, Gesualdo used almost Wagnerian chromaticism. However, the madrigal of the Italian Renaissance should not be confused with that of the Ars Nova, where the term first appears. The 16th century Italian madrigal was more highly developed and in a more sophisticated style than that of the 14th century.

Finally, out of Italy also came the villancico. The villancico came from southern Italy about the middle of the century. It is similar in style to the frottola, but its texts are generally more refined and the music somewhat more sophisticated.

The next form of importance is from Germany. It is called the lied ("song"). These lieder were usually based on folk song melodies which skillfully combined these melodies in the countrapuntal technique of the Netherlands. The first real masters of the polyphonic lied were Issac and his contemporary, Heinrick Finck (1445-1527). Both presented their German melody phrase by phrase with the bass and tenor in canon; the other two voices anticipate each phrase with brief imitation in quicker rhythms.

From France came the chanson. The general structure of the chanson of this period was similar to that of the motet, but its rhythm and texture were simpler and its sections shorter. The adaptation of the French chanson in Italy (called the canzona) resulted in frequent arrangements of these pieces for the keyboard or lute or both. The earliest instrumental transcriptions were done by Andrea Gabrieli and Willaert. They transcribed their works for both organ and other instruments.

Another country of importance which contributed to the polyphonic form was England. The English madrigal was influenced by secular development in Italy. It was characterized by: (1) the excellence of English verse; (2) its solo voice with a small group; (3) its increase in chords and rhythm; (4) its range from four to six voices in its parts; (5) its use of diatonic rather than chromaticism as in some Italian madrigals; and (6) meter changes.

> Secular polyphonic differs from sacred polyphony in the following ways: (1) it had a tendency toward a stronger and a more lively rhythm than is found in sacred polyphonic music; (2) it had a tendency towards major tonality and had less modal flavors; (3) limitation of four or five voices; and (4) cantus firmus is used less in secular polyphony.[10]

The last area will be that of instrumental form which will be described very briefly, since color is analyzed later. The first two forms are the ricercar and the canzona, the ricercar being the instrumental counterpart of the motet and the canzona of the chanson. The ricercar was similar in construction to the motet and was treated in a fugal manner. However, it differed from the vocal style because of the addition of typical instrumental embellishments.

The canzona was first transcribed for the lute and keyboard. They were characterized by their clarity and balance of forms and by variety of texture.

Next were the pavane and the gaillarde, which were French dances with a combination slow duple meter followed by a fast triple meter on the same tune. The last one, and perhaps the most widely used, was the theme and variations which originated in Spain and England with the lute and keyboard. Some other forms were the basse dance, tourdion, fantasias, and toccata and prelude.

Texture

The next area of analysis is that of texture. "Repetition, imitations, and overlapping of the motive in various ranges make a polyphonic texture preferable if not imperative."[11] Therefore, the polyphonic texture was brought about by the existence of these elements.

The old concept of polyphonic texture was punctus contra punctum, "dot against dot" or "note against note." However, it is thought of by the sixteenth century as melody against melody. Because of the constant use of two or more simultaneously moving melodic lines, the listener should think in a horizontal rather than vertical fashion.

As was stated earlier, texture and form are closely related. For example, *Grove's Dictionary* says: "There were three forms in common use, (a) fugal, (b) chordal, and (c) intermediate. These three also roughly cover the three textures available. (a) Fugal – however, not as the mature Bach fugue, rather the imitation by one voice of a phrase or subject previously announced by another. (b) The chordal or homophonic which consists of strands moving simultaneously in homophony. (c) The intermediate where in the texture is definitely counterpunctual and yet not fugal. The term covers any procedure which does not fall within the first two categories."[12]

Color

The next area is that of color or instrumentation. In the beginning of the 16th century, the voice and various musical instruments and the style and performance of each were kept close together. Consequently, instruments were substituted for or doubled with the voice. However, as polyphony matured, there were skips, wide melodic lines, long sustained tones, syncopated rhythm, rapid repeated notes, and freely added chords which called for new and developed instruments.

Some of the instruments which made their way into the 16th century polyphony include the lute, (perhaps the most popular instrument), harpsichord, shawms (double-reed instruments), cromornes (also with a double reed, but softer than the shawms), and cornetts (made of wood); the trumpets and trombones. In the string family were the viols which were constructed somewhat differently from the violin which was to become dominant in the next century.

Dynamics

The final area of analysis is that of dynamics. Polyphonic music had no dynamic markings as we know them today. The dynamics were determined by the actual size of the performing group. Also, the dynamics were regulated by the melodic line(s). When the melody went up the dynamic level of the voices would rise. When the melody came down, the dynamic level of the voices came down also.

Summary

After this analysis, some overall generalizations can be drawn. First, the "Golden Age of Polyphony" was a continuing process from the 9th century. Second, secular music, not under strict church rule, gained in importance. Third, religious music was fostered by the Catholic Church while the nobility supported secular music. Fourth, an independent instrumental style emerged in the late 16th century. Fifth, modality still prevailed in both sacred and secular music; but a breakdown appears in the second half of the 16th century. Also, music printing was begun which contributed to the popularity of music. Finally, there is perhaps no music which demands more attention of the listener than polyphony. It takes a developed ear to sense the ingenious melodies which the composers have interwoven.

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Footnotes

1. Donald J. Grout, A *History of Western Music* (New York, 1960), pp. 237-238

2. Eric Bloom, ed., *Groves Dictionary of Music and Musicians,* New York, 1962, VI, p. 853

3. Martin Bernstein, *An Introduction to Music,* Rev. ed., New York, 1951, p. 56

4. E. Bloom, *op. cit.,* pp. 856-857

5. *Ibid.,* p. 858

6. *Ibid.,* p. 860

7. *op. cit.,* p. 860

8. W. J. Baltzell, *History of Music,* Philadelphia, 1955, pp. 186-187

9. *Ibid.,* p. 185

10. Hugh M. Miller, *History of Music,* New York, 1958, p. 43.

11. William S. Newman, *Understanding Music,* Rev. ed., New York, 1961, p. 140

12. E. Bloom, *op. cit.,* p. 861

THE PHILOSOPHIES AND ATTITUDES OF SELECTED MUSIC TEACHERS TOWARD MUSIC EDUCATION

DR. M. ORVILLE JOHNSON
Director of Music Education
Independence Public Schools

ABSTRACT

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SUMMARY

The purpose of this study was to determine the current philosophies and attitudes toward music education in the public schools held by representative music educators. These philosophies and attitudes were to be determined by obtaining an evaluation from each respondent to forty philosophy statements and forty attitude statements.

These evaluations, necessarily, depended upon the judgement value given the philosophies and attitudes by high school music teachers, music supervisors, and college and university teachers of public school music subjects.

The philosophy statements had, as their emphasis, a study of a particular branch or subject of knowledge of music education.

The attitude statements expressed a position, a disposition or method with regard to a subject of music education.

Selection of the population

The high school music teachers, music supervisors, and college and university teachers of public school music subjects, were chosen from the sixteen western states of the continental United States. Three subdivisions of the Music Educators National Conference; the Southwestern Conference, the Western Conference, and the Northwest Conference include these states.

The names of the high school teachers and the names of the supervisors and the college-university teachers were alphabetized and selected according to a random numbers table.

Collection of the data

The data were collected through the use of two instruments. One was a Q-sort instrument in which forty philosophy and forty attitude statements were used as a questionnaire. The philosophy statements were printed on cards numbered only, from one to forty. The attitude statements were printed on cards which were numbered A-1, A-2, to include forty attitude statements.

The respondents were asked to "play cards" with each group of forty cards in such a way that seven groups of cards were finally arranged from the forty statements.

1. One statement was to be placed on the guide card numbered seven (7). This was the most important statement and became Group VII.
2. Four statements were to be placed on the guide card numbered six (6) and Became Group VI.
3. Nine statements were to be placed on the guide card numbered five (5) and became Group V.
4. Twelve statements were to be placed on the guide card numbered four (4) and became Group IV.
5. Nine statements were to be placed on the guide card numbered three (3) and became Group III.
6. Four statements were to be placed on the guide card numbered two (2) and became Group II.
7. One statement was placed on the guide card numbered one (1). This was the least important statement, and became Group I.

This same procedure was to be followed with the attitude statements. Upon completion of this Q-sort, the respondents were requested to write the numbers of the philosophy statements on the tally sheet provided for the philosophy statements. The tally sheet was designed to accommodate the arranged numbers as explained in the paragraph above. The attitude statements were to be recorded in the same manner on a sheet specifically designed for attitude statements.

The second instrument used in this study was a questionnaire of six questions. The six questions pertained to: the college major, subject major; the kind of a school attended (university, state college, church school, conservatory); the years of experience in elementary, and secondary and/or college teaching; or any combination of these areas; the teaching assignment (band, orchestra, choral, methods, administration, supervision, private lessons); and the enrollment in the school system or the college where they were presently teaching. The respondent was then asked to identify his present position (high school teacher, supervisor, college or university teacher).

A pilot study was executed to aid the writer to develop an acceptable Q-sort questionnaire. Fifteen people, representing each of the three areas of the study, were requested to take part, and 100 per cent cooperation resulted. The pilot study respondents were asked to mark statements which were not clear, not concise, poorly worded, or of little value. More than forty philosophy and forty attitude statements were included. With the aid of Dr. E. E. Mohr, forty philosophy and forty attitude statements, ultimately, were agreed upon.

Accumulation of data from the questionnaire

The total of 362 Q-sort questionnaires were distributed. The percentages and the results of this questionnaire are based on a 39.2 per cent return to the questionnaire. Fifty per cent of these returns were from high school music teachers, 22.5 per cent from supervisors of music education, and 27.4 per cent returns came from college-university teachers of music education subjects. Because the totals of the responses were not equal from each of these three groups of respondents, the analysis of the returns were made in terms of per cent. Not only a percentage of the returns was calculated, but also a percentage of the consistency of the statements of a particular group of respondents, and a percentage of the consistency between the groups as a unit.

Analysis of returns of the study

The one most important philosophy statement could accumulate only 13.3 per cent of the responses. "We should be more concerned with what music can do for the child than what the child can do for music."

The most important attitude statement could evoke only a few more responses than the above total. "If moral and spiritual values are to be found in music education, they must be found in the character, personality, and life of the music educator." Only 16.9 per cent of the respondents could agree on this attitude.

The responses to the seven Groups of statements developed no great consistency between the three groups of respondents. The greatest consistency of all respondents was developed in the one least important philosophy statement, Group I. "The contribution of the arts in public education is not as essential in our day of science and automation as in earlier societies," tallied better than 50 per cent of the returns from high school teachers, supervisors and college-university teachers.

A higher consistency was again exhibited in the attitude statement of least importance. "The importance of music education has been over emphasized. The development of an art-conscious society could well be attended to through other means than music." This statement elicited enough responses for a total of 28.8 per cent of the returns.

Analysis of the Philosophy Statements

The analysis of the philosophy statements must be related to the Group in which each statement was placed. (Group VII being the most important). Of the four statements placed in Group VI, statement No. 23 again gained the greatest percentage of returns 40.1 percent, namely, "We have often been negligent in our concern with what music can do for the child as over and against what the child can do for music." The combined total response to this philosophy statement was 53.4 per cent, but only 13.3 per cent were agreed that it was the most important philosophy statement of the group of all forty statements.

In Group V, the philosophy statement, "music education requires flexible standards adaptable to different goals and to varying degrees of ability," (statement 36), was placed at the head of the nine statements.

However, three statements, included in Group VI, were again placed in Group V. "The music educator must assume the task and obligation to become a positive force in present day society, for society demands a pattern of education to meet the contemporary needs," (No. 22), "the study of music in schools should find its reflection in the cultural life of the community," (No. 8), and, "a child's attainment in any subject should be limited only by his own capacity, not tha eof his teacher," were found in Group VI and Group V. However, this last statement was the last in Group V.

To dramatize the lack of real unity in our thinking, only two philosophy statements of Group V were included in Group IV (the twelve statements of a "neutral" quality). No. 14, "expressions through song and movement are the fulfillment of rhythmic feelings and responses, and are essential to the construction of a program of school music education," was next to the last in Group V and was first in Group IV. The statement, "we must determine what is good music and what music is good for, if we are to create a balance within the music program," was last in Group IV but third in Group V.

The one least important philosophical statement stood alone and was not placed in any other Group by the respondents. "The contributions of the arts in public education is not as essential in our day of science and automation as in earlier societies," was considered by 52.1 per cent as being the least important philosophy statement. This is as it should be.

Analysis of the Attitude Statements

A brief analysis of the most important attitude statement Group VII, reveals that although statement No. 1, "if moral and spiritual values are to be found in music education, they must be found in the character, personality, and life of the music teacher," was not included in any other Group of attitude statements, yet could claim only 16.9 per cent of the responses.

Again in Group VI, three statements appear in Group V but not in the same order of importance. In recent years, "the trend toward self-contained classrooms and the attendant withdrawals of specially gifted and trained teachers of the arts in favor of the general teacher has given leaders in music education genuine and honest concern." This statement tallied just a little more than one fourth of the responses to place it first in Group VI. In a most noticeable manner, however, the respondents chose attitude statement No. 35, No. 34, and No. 7 as important statements in Group VI and Group V. "Teachers must possess musical insights in order to select proper music for performance." This statement was favored by 25.3 per cent of the respondents. This depth or insight usually signifies the musical stature of the teacher. To the statement that, "music will never yield its richest pleasures if it is treated merely as happy play," was listed by one-fifth of the respondents as an item in Group VI. The last item in this Group, "music education should discover, encourage, and aid the really talented musician," became the first item in Group V and gained more responses in Group V than No. 35 and No. 34.

The attitude statement considered least important, Group I, stating that, "music education has been over-emphasized and the development of an art conscious society can well be attended to through another means than music," could gain only 28.8 per cent of the responses and was considered to be of lesser importance by being placed in Group II as well. Even this negative attitude toward music and its place in a cultural society was not easily agreed upon as an unimportant statement.

The lack of any majority opinions toward the attitudes and philosophies became cogent to a greater extent, when it became obvious that a few of the statements were duplicated in two groups of statements.

The highest percentage of consistency to the philosophy statements was gained by the supervisors. The high school teachers were the most consistent in their responses to the attitude statements. This consistency did not exceed 54.0 per cent for any group of respondents, however.

The responses to the personal questionnaire displayed greater unanimity and had far greater consistency. Most of the respondents (76.7 per cent) had attended state colleges or universities. Almost 50 per cent of each group of the respondents were music education majors in college or university. More than 50 per cent of each group of respondents were teaching in small schools of two-thousand students or less. Most college teachers (64.1 per cent) were teaching in colleges of less than five-thousand enrollment. The largest majority (28.1 per cent) of those responding were in the experience age group of six to twelve years, but were closely followed by the age groups thirteen to twenty (26.7 per cent).

The majority of the respondents (29.5 per cent) had taught all three levels of education; elementary, secondary, and college-university. The music supervisors (57.3 per cent) performed their services in school systems with an enrollment of twelve-thousand or more, and were the largest group of respondents (10.5 per cent) engaged in one daily teaching-supervising activity.

The only reason for securing the above data was to give further basis for making comparisons.

Conclusions

1. It has been the purpose of this study to present judgment values toward statements concerning music education. Philosophy is concerned with value judgments, and since several values may be acceptable to express this philosophy, as over and against opinion, whether it is true or false depends upon how it satisfies the criteria relevant to the critical judgment of philosophical work. Each reader decides this for himself. The philosophy statements presented in this study were based on statements made by music educators.

An attitude, psychologically speaking, is a construct which is inferred from observable responses to stimuli. A habit in process of formation creates an attitude. The attitude statements selected for this study referred to elements in music education such as, class procedure, administration, teacher preparation, score reading, cultural growth, and amateurism.

Originally the writer had hoped that definite statements of philosophy and attitude could be found. In the development of this study, the writer became increasingly aware of the difficulty in delineating between philosophy and attitude statements of music educators. It could well be that the results of this study represent responses to general statements concerning music education rather than to specific statements of philosophies or attitudes.

2. The respondents of this study exhibited little uniformity or consistency toward any statements expressing an important philosophy of music education. A major emphasis of music education remained undecided at the conclusion of this study.
3. The statements which referred to performance in music education did not solicit any greater responses than statements pertaining to the emphasis to be given to the specifics of music. The development of amateurism in music education was thought important by a mere one-third of the respondents. It was considered significant, however, that teachers should possess musical insights, and the selection of music for quality performance was directly related to this ability.
4. The high school music teachers and college-university teachers of music education subjects indicated some uniformity of opinion in the matter of methods of instructions, and the preparation of teachers. However, only one-third of each of these two groups could agree to statements referring to this aspect of music education.
5. The consistency of the three groups of respondents was relatively low except to a few of the statements, both philosophy and attitude, which were considered unimportant. Why this lack of agreement, unity or consistency was so pronounced can only be a conjecture. The rigidity of curricula and schedules could well cause the high school music teachers and supervisors of music to become more dogmatic. The lack of many of these confining elements, as well as the stress of the importance of research and its resulting new emphasis, could well be the reason why college-university teachers accept fewer final answers to immediate problems. It could be assumed, however, that if more consistency toward basic philosophies is to be achieved, it will necessarily come from those who prepare teachers.
6. The supervisors, while not displaying extremely high percentages of consistency, were the most consistent of the three groups of respondents.

7. It must not be assumed that the lack of unanimity between the three groups of respondents will ultimately produce a state of chaos in music education. It could be assumed, however, that as a profession, we need to develop more basically sound principles for the development of instructional material in accordance with the objectives established. The emphasis given the unimportant statements seems to accent the need for more basic aims and objectives without hindering the flexible standards adaptable to different goals and varying degrees of ability present in the many areas represented in this study.
8. The lack of a recognizable degree of unity or consistency could have been due to the statements not representing discernable philosophies and attitudes of the respondents. Hence, it may have been difficult for the respondents to make a distinction between the two groups of statements.
9. Whatever the cause, it seems safe to conclude the instrument used in this study did not register any strong agreement, unity, or consistency between high school music teachers, music supervisors, or college-university music teachers toward music education.

Recommendations

The following recommendations are made on the basis of this study:

1. Teacher preparation and its accompanying interests should emphasize the basic value of score reading and to place in accurate perspective the value of the ability to interpret musical concepts as indicated within the sign language of music.
2. It is significant that music educators are agreed that we should be concerned with what music can do for the child. There is need to determine, more exactly, the grade level where certain specific musical concepts should be taught, and to determine if music education demands the same step-by-step progression followed in the teaching of other subject matter in the curriculum.
3. The cultural development of any community is an important sociological problem. Music education should investigate the broader meaning and implications involved in this enigma. Does it develop through personal involvement, through general music instruction, through group performance, or in spite of any integrated program the schools can offer through music education?

Further research needed

On the basis of this study the following areas of research are suggested:

1. A similar study could well be refined to the extent fewer statements are supplied the respondent, and a larger number of respondents are sampled.

2. Study needs to be applied to the question of what constitutes basic objectives in music education, and to determine, if possible, what are these objectives.

   Criticisms of the programs of music education in the public schools have come largely from college-university teachers. This is due, no doubt, to the fact that the college-university teachers contribute more articles to magazines for publication than do high school music teachers or music supervisors. Further study in the area of teacher training and teacher preparation, as well as in the area of performance, could well provide a better understanding between these two groups of music educators.
3. In view of the fact, that research in music education is sponsored so heartily by the Music Educators National Conference, through their Journal of Research and its related committee, it would not be an unreasonable problem to sample the entire membership of the Music Educators National Conference for some clue as to what basic philosophies and attitudes music educators should hold. Since this membership totals about thirty-eight thousand music educators, the sample of respondents would be conclusive.

Philosophy statements in the Q-sort questionnaire

1. The experimentalist places great stress on freedom and socialization in the rehearsal room. Discipline develops from within the student rather than from without, hence, causes more individual growth.
2. Class methods as developed within the United States, and applied to music education, will ultimately produce about the same results as private lessons and will do so in half the time.
3. The most effective avenue to appreciation of music is through the creating of music.
4. The contribution of the arts in public education, is not as essential in our day of science and automation as in earlier societies.
5. The essentials of musicianship are the ability to feel and the ability to understand.
6. Many of our standards in music are thoroughly false and inimical to the best and most creative types of activity, and this is so because our art has become, to some real and dangerous extent, divorced from the service and the lives of men.
7. Our end should be to preserve and extend the natural delight which all children have in music.
8. The study of music in schools should find its reflection in the cultural life of the community.
9. The wide use of music in comprehensive or integrated units, in general education programs, and above all the contributions of the classroom teachers are of the utmost value, so long as they are parts of a planned, sequential, coordinated whole.

10. Music educators demonstrate little faith in democratic processes in education. Music classes too frequently adhere to "rule and order" in carrying out instruction.
11. The greatest importance of music is its communication of the most magnificant, the most inspiring spiritual messages.
12. Music should not be used as a stepping stone in learning, but rather as a solid stone in the foundation.
13. A basic assumption stated briefly, is that the study of music theory, properly understood and controlled, is in the end, the most practical approach to the problems of music education.
14. Expressions through song and movement are the fulfillment of rhythmic feelings and responses, and are essential to the construction of a program of school music education.
15. Faculties of any school should first determine a philosophical highway upon which to walk.
16. The philosophy of diversity, as practiced in music education within the United States, will ultimately produce the kind of results most suited to this country.
17. Educational institutions should be encouraged to develop different educational philosophies. Music education should have the same freedom.
18. We do not find quality of music and quantity of music incompatible.
19. Music is either tuneful, obvious as a form, or markedly rhythmical or picturesque, or dramatic, or astonishing. These responses should be encouraged in children as preparation for genuinely esthetic responses which come later.
20. Diversification within the music program should be conceived in the light of the character of the entire school population. Such a diversification is too frequently limited to special interests and special abilities.
21. We must determine what is good music and what music is good for, if we are to create a balance within the music program.
22. The music educator must assume the task and obligation to become a positive force in present day society, for society demands a pattern of education to meet contemporary needs.
23. We should be more concerned with what music can do for the child than what the child can do for music.
24. We should be concerned, in music education, to bring music as an art, into a more realistic relationship to the total social and cultural scheme of life.
25. Music concerns itself with the physical body and the emotions rather than the intellect.
26. Music, in any form, should never be subjected to a secondary role. Its artistic wealth demands that its use be for the sake of music, first and last.
27. From a developmental point of view the teaching of music is not the teaching of a subject in the conventional sense.

28. The purpose of all music teaching must be to bring about the evolution of musical responsiveness or musicality.

29. The needs of public school music arrange themselves in a continuum extending from the concept of music as an aesthetic, spiritual end in itself, to the concept of music as an instrumentality for the realization of worthy personal and social ends of a nonmusical nature.

30. The power and meaning of the art of music does not lie at all in any kind of dexterity, however wonderful. It is significant because it is a creation and expression of the human mind, and a vital element in the culture of our race. So it is that the broadly humane musician will become, through his music, a broadly educated man.

31. A child's attainment in any subject should be limited only by his own capacity, not that of his teachers.

32. A fundamental principle of education should be to make the pupil realize the meaning of excellence of the first-rate, and to send him out of school and college persuaded that it is his business to learn what is first-rate and to pursue it.

33. The power of music is great, but is often lost by those who practice its skills to the sacrifice of insights and concepts meaningful to others.

34. No student should be deprived of special musical opportunities regardless of his aptitude.

35. The over-emphasis of music's effective power – the inducement of emotional states – is a dangerous teaching device.

36. Music education requires flexible standards adaptable to different goals and varying degrees of ability.

37. In arriving at a sound educational esthetic, we need not look beyond music as the "perfect" identification of form and matter.

38. Music education has leaned too heavily upon borrowed philosophies, rather than to formulate disciplines and philosophies of its own.

39. The educational process must work within the limits imposed by the students lack of maturity in years and experience and by the physical limitations which govern the extent of their vocal and instrumental participation. Hence; regardless of what we are required to choose as teaching material, we remain obligated to a musical performance.

40. Teachers of great disciplines, may become so specialized that they cannot be classed as first-rate educators. Teachers of music may well fall into this classification by being less the educated teacher and more the able conductor or director.

Attitude statements in the Q-sort questionnaire

A- 1. If moral and spiritual values are to be found in music education, they must be found in the character, personality, and the life of the music educator.

A- 2. The present trend toward selfcontained classrooms and the attendant withdrawal of specially gifted and trained teachers of the arts in favor of the general teacher, gives us cause for genuine and honest concern.

A- 3. A musical program should never be considered complete unless there is a step-wise progression of experiences and advancement over a three or four year period.

A- 4. We must never get away from the charm, the appeal of music itself. To learn music reading is not to learn a skill or an intellectual technique.

A- 5. The moveable *do* syllables have one great and decisive value. They are our best and clearest indications of tonality-relationships, or key relationships.

A- 6. The primary and controlling aim of a program of music education in the school is effectively and intelligently to promote musical amateurism.

A- 7. Music education should discover, encourage, and aid the really talented pupil who is likely to succeed as a professional musician.

A- 8. To render permanent possibilities of growth in the knowledge and appreciation of music by developing in children the power to interpret the notation in which music is written is a desirable outcome of music education.

A- 9. Teacher training institutions should prepare teachers capable of developing in each child as much knowledge of and intelligence concerning both the construction of music in general and of a large number of individual compositions of music.

A-10. Music is being taught, in many instances, at least, by persons who are not sufficiently scholarly so far as musicianship is concerned and therefore are not able to reveal to their pupils the ultimate beauty that is inherent in the music they are directing.

A-11. The clarification of basic aims is the way to bring about widespread cooperative understanding needed for a good music program today.

A-12. The continued growth in music becomes possible only through the development of the individual as an independent musician.

A-13. There has been a tendency to promote technical excellence in music education at the expense of artistic standards.

A-14. It has long been assumed that only singers are poor music readers, but there is reason to check carefully into the quality of the pitch imagery which our instrumental instruction is producing.

A-15. Music educators have long since lived down the reputation of many of their predecessors in the matter of authoritarian teaching of notes, sharps, flats, and uninspiring do-re-mi's.

A-16. Now that music education has come of age, it should look to the quality of its efforts, implying in the process that quantity has had too much attention.

A-17. The present state of development of tests of musical capacity does not warrant their use as the sole determinant in screening students for specialized musical opportunities.

A-18. Schools are demanding too much of their music teachers, and teaching loads should be studied with a view of making it possible for the teacher to improve instruction.

A-19. The success of music educators seems to come largely from the uncritical and unsophisticated judgments of the people in the communities and that, while this assures the music educator a steady and action-packed job, it is not necessarily an indication that the ultimate objectives of music education have been met.

A-20. Prospective teachers, still in college need more emphasis on the practical aspects of the administration of such activities as classes, organized groups, libraries, purchasing equipment, developing a course of study, and general professional relationships present in music education.

A-21. In the matter of relationships between music and the total education program, it would appear that discussion is still carried on superficially on both administrative and curriculum levels.

A-22. Training in the techniques of evaluating musical performance should receive specific attention in the preparation of musicians and music teachers.

A-23. There are certain levels of music training where the instruction of technique should overshadow all other musical instruction.

A-24. Interest in music at the high school level, should be an interest in music rather than interest in associated activities.

A-25. Note reading is of little value in the total music program.

A-26. The music education of the student may be less important than the development of a sense of responsibility gained from membership in a performing group.

A-27. Our music books are too frequently storehouses of material which in no sense presents an experience of beauty, nor serves as a stimulus to good taste.

A-28. The approach to music should be natural and never accompanied by the disagreeable suggestion of an unwelcome task. Yet to do this we must eliminate undue emphasis on technique, which stifles and often destroys an early interest in music.

A-29. Too many high grades are given for inferior work. Better that music education show its worth by developing objective standards upon which grades are based.

A-30. To assist millions of young people to develop the ability to make their own music and express themselves musically as amateurs pure and simple, is one of the purposes of music education as practiced in our public schools.

A-31. To encourage people to find in music ideas, pictures, dramatic situations, is to do violence to music and disservice to the listener.

A-32. The importance of music education has been over-emphasized. The development of an art-conscious society could well be attended to through other means than music.

A-33. Just listening is us important as anything a child can do. We are so possessed with overt acts as to become unconscious that patterns in music must be heard to be understood.

A-34. Music will never yield its richest pleasures if it is treated merely as happy play.

A-35. Teachers must possess musical insights in order to select proper music for performance. This depth or insight usually signifies the musical stature of the teacher.

A-36. The music teacher should see the child not as a listener but as an active participator.

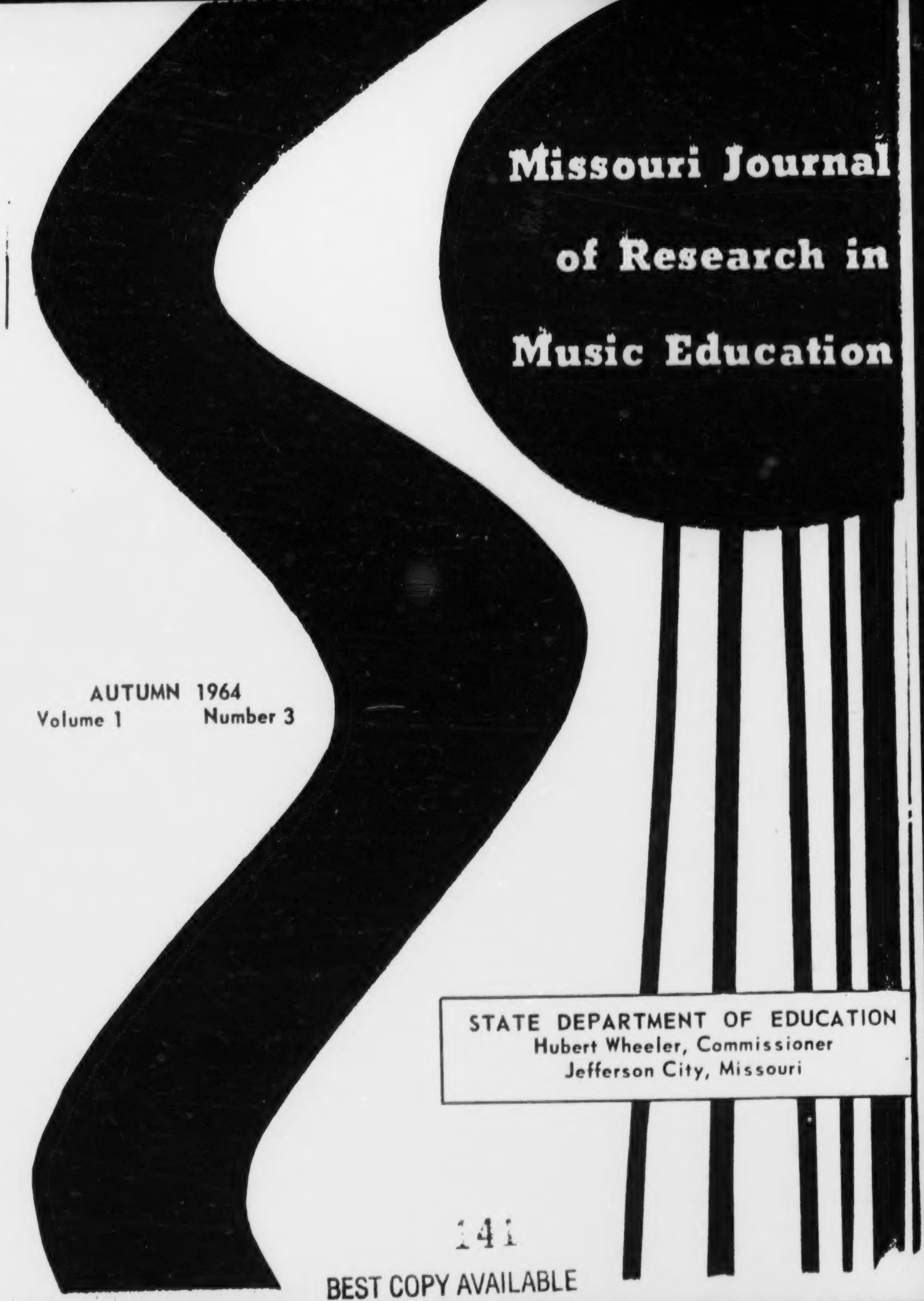
A-37. The teaching of note reading has an essential place in a developmental program of music education for to learn to read music is to learn to understand music.

A-38. If we are to have musical audiences, we must educate them musically, and to do this, we must know what an esthetically musical experience is and what constitutes a musical understanding of a musical art product.

A-39. The growing realization of the wide differences in musical tastes of our population and the greatly expanded nature of our national culture implies that the school should bring to the students a more extensive selection of musical literature.

A-40. Music education tends to follow the path of least resistance. Performance demands great sacrifice and youth, in general, do not want to pay this extreme price. Hence, our music education has tended to satisfy the general music student with music taught for the masses rather than for the intensely interested student.

Missouri Journal of Research in Music Education



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STATE DEPARTMENT OF EDUCATION
Hubert Wheeler, Commissioner
Jefferson City, Missouri

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MISSOURI JOURNAL OF RESEARCH IN MUSIC EDUCATION

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MISSOURI JOURNAL OF RESEARCH IN MUSIC EDUCATION

Alfred W. Bleckschmidt, Director
Supervisor, Fine Arts Education
State Department of Education

Lewis B. Hilton, Editor
Washington University, St. Louis

EDITORIAL COMMITTEE

Charles Emmons, University of Missouri
M. O. Johnson, Independence Public Schools
Leon Karel, Northeast Missouri State Teachers College
F. Bion McCurry, Southwest Missouri State College

Suggestions To Authors

Contributions to this journal should be sent to Alfred W. Bleckschmidt, Supervisor, Fine Arts Education, State Department of Education, or Lewis B. Hilton, Editor, Washington University, St. Louis. Authors should observe the following rules in preparing their manuscripts: the editors welcome contributions of a philosophical, historical or scientific nature which report the results of research pertinent in any way to instruction in music as carried on in the educational institutions of Missouri. Articles should be typewritten, with double spacing throughout, including footnotes, long quotations, and itemized lists. Footnotes should be placed consecutively at the end of the article, beginning on a new page, using triple spacing between notes. Authors reporting quantitative studies may substitute a list of references for footnotes in accordance with the practice followed in many scientific journals. In all instances, manuscript style should follow recommendations made in the MLA Style Sheet. The Chicago Manual of Style should be followed in setting up tables, charts and figures, which should be numbered and placed on separate pages. (Suggestions to the authors is reprinted from MENC publication, *Journal of Research in Music Education* by permission of the editors).

FOREWORD

We present with pride this third edition of MISSOURI JOURNAL OF RESEARCH IN MUSIC EDUCATION. This publication reflects the continuing effort of the Missouri State Department of Education to provide quality teaching in our state.

Each day in every facet of our living, we are reminded of the conquering of new frontiers through research. In education, we are grateful to those who conduct and record research. The efforts in these projects strengthen the art of teaching and facilitate learning. We commend those who search out new truths and explore new paths.

This edition contains projects by those in the teaching field, by college students on the graduate and undergraduate levels, and by students in Missouri high schools. As they have shared with us, we are pleased to share with you.

B. W. Robinson

Assistant Commissioner
Division of Instruction
Director of Vocational Education

PREFACE

The Missouri Journal of Research in Music Education is a publication devoted to the needs and interests of the school and college music teachers of Missouri and of the nation. It is published as a Bulletin of the State Department of Education. Besides the publication of reports of research or experimentation in progress or completed, included are abstracts of theses either completed or in progress, articles of a philosophical nature, as well as simple reports on the results of successful musical pedagogy. Again the Editor is happy to include a paper written by a Missouri High School Student (Number IV by William Prante) It is the hope of the Editorial Staff that it will prove to be a useful means for the exchange of experiences, opinions, and research among practicing music educators as well as those preparing to enter the profession, including those high school students who are interested in music and may eventually enter the field of music education.

Of special interest to University and College musicians are the three preliminary reports on music history and music theory pedagogy and the report on student teaching practices, the results of research sponsored by a continuing committee of the Missouri Music Educators Association, College and University Division. Comments from readers are particularly invited on these reports. Subsequent issues of this Journal will contain Progress Reports in these areas.

Since this publication is not copyrighted, complete articles or excerpts from articles may be made without charge. In so doing, it is requested that credit be given to the Missouri Journal of Research in Music Education.

Copies of this Journal are obtainable without charge from the Missouri State Department of Education.

Suggestions to the Editor concerning the format of the Journal or the content of the articles included are solicited. If enough interest is evidenced, future editions of this Journal will include a section devoted to Letters to the Editor.

Grateful appreciation is expressed to those who have assisted in any way in the preparation of this bulletin.

STATUS STUDIES AND RECOMMENDATIONS OF THE MISSOURI MUSIC EDUCATORS COLLEGE AND UNIVERSITY DIVISION IN THE AREAS OF MUSIC HISTORY TEACHING, MUSIC THEORY TEACHING, MUSIC STUDENT TEACHING PRACTICES

The three articles which follow constitute the first reports of a continuing study by the MMEA College and University Division in the teaching areas listed. The recommendations listed at the end of two of the articles were first voted upon and passed by the members present at the College and University Division meeting during the MMEA Convention in Kansas Ctiy, Missouri on January 11, 1964. They were subsequently presented to the Executive Board of the Missouri Music Educators meeting in Columbia, Missouri on June 26, 1964 and passed. Progress reports will be made at the MMEA convention in Columbia in 1965.

The Editor

MUSIC HISTORY TEACHING IN MISSOURI COLLEGES AND UNIVERSITIES: A PRELIMINARY REPORT

Martha H. Wurtz
Washington University

The following material has been prepared at the request of Dr. Lewis B. Hilton and the College-University Division of the Missouri Music Educators Association. A questionnaire which dealt with present practice in the teaching of music history for music education majors was sent to 112 staff members of Missouri colleges; these included chairmen of departments, music education faculty, and all faculty listed with the State Department for musicology, music history, music literature, or music appreciation. In addition to dealing with present practice, the questionnaire asked for opinion about various aspects of history training needed for music education majors. Sixty-one persons, or 54.4% responded; since faculty assignments do change, it is possible that some of the blanks were sent to persons not concerned at this time with the area under discussion. In any case, the response indicates a considerable interest in the subject.

The results shown in the information gathered show especially the great diversity in practice in Missouri colleges; a considerable difference of opinion on the amount of history training required, and on the manner of course spread, is also obvious.

One of the factors which influenced the type of questionnaire sent was the similar opinion poll in process relative to the teaching of theory for music education majors. That work is concerned with the possibility of giving some kind of practical application final examination to determne whether the student has absorbed the theory materal in such a way that he can apply it to a real situation of the kind he will have to deal with on the job. It is suggested that thought be given to a similar examination for history. This is a much more difficult problem, however, since the physical problems would be much greater. What sort of practical examination could be given to determine, for example, whether the student specializing in choral music truly knows the proper style for performance of a certain Renaissance madrigal? He would need a performing group with which he could work long enough that his performance would be a true demonstration of his abilities. The group is asked, then, to give some thought to a realistic solution to this problem. It is obvious from answers given on the questionnaire that a large number of persons do not feel that the cooperating teachers in the practice teaching situation can be relied on for proper judgment in this matter.

The respondents in several cases did not answer all questions. In some instances a particular teacher did not have the information asked for; in others, the respondent simply did not choose to answer.

The statements and questions from the questionnaire, together with the responses, follow:

I. The amount of history work

1. Music education graduates generally do not get enough training in specialized area history courses (Renaissance, Baroque, etc.)

73.6% agree; 12.2% doubtful; 14% disagree
The wording of this statement in a negative way was an error on the part of the writer. However, the opinion of the respondents is clear, in that a total of 85.8% feel, at least somewhat, that music education people need more special area courses.

2. One year of broadly-based music history is enough for the *music education graduate.* 12.2% agree; 61.4% doubtful; 26.3% disagree
3. The music education major needs *more* history work than other music majors. 15.7% agree; 57.8% doubtful; 26.3% disagree
25. In my school, the music education major is likely to be able to take — hours maximum in history. (Following are the hours maximum reported. Remember that several persons from the same school may report, so that the largest numbers may include several responses from the same school.

Hours	0	4	5	6	7.5	8	9	10	12	14	14
Persons Reporting	1	5	1	17	3	3	4	12	6	2	2

26. The average music education student gets — hours in specialized area history courses in my school.

Hours	0	2	3	4	6	7.5	8	9	10
Persons reporting	25	1	1	6	12	2	2	1	2

27. 75% report that their students get a broad general history course, but no special area courses. Some respondents must have answered incorrectly on either item 27 or 26, since the figures do not agree.
15. History training for the prospective private teacher should be less detailed than that required for the public school teacher. 5.1% agree; 18.9% doubtful; 75.6% disagree
16. The music education major and the prospective private teacher need much the same history work in college. 94.9% agree; 5.0% doubtful; no disagreement
21. In my situation, the students' programs could be altered so that more history courses could be taken in place of some of their present electives. 19.2% yes; 29.8% doubtful; 50.8% no
22. In my situation, it would be possible to add further history courses to the present load of the music education student. 9.2% yes; 27.7% doubtful; 61.1% no

II. Regarding proof of ability to perform, grading on the same, and relative matters

7. Before receiving his degree, the music education major should be required to prove by actual performance that he can apply his history knowledge to a practical situation by preparing and performing specified works for choral group, or instrumental group, or preparing and teaching demonstration lesson in history-literature. 77.9% agree; 11.8% doubtful; 10.1% disagree

8. The supervising teachers who work with the student in his practice teaching attend to Item 7 during the practice teaching period.
35.5% agree; 38.9% doubtful; 25.4% disagree
9. The supervising teachers in the practice teaching situation are always capable of judging the student's success in the situations described in Item 7.
8.6% agree; 51.7% doubtful; 39.6% disagree
10. The supervising teachers in the practice teaching situation should decide whether the student can perform satisfactorily as described in Item 7.
28.2% agree; 36.9% doubtful; 56.5% disagree
11. The history teachers at the student's college should have a hand in deciding whether he has performed Item 7 properly.
79.6% agree; 11.8% doubtful; 8.4% disagree
12. History teachers often do not know how to perform what they teach.
62.7% agree; 29.6% doubtful; 7.4% disagree
(It seems strange that 79.6% think history teachers should have a hand in the grading of performance, but 62.7% think history teachers often do not know how to perform what they teach.)
3. "Doing" as described in Item 7 is an unfair test at this level.
8.6% agree; 25.8% doubtful; 60.2% disagree.
5. History training for music education majors should put more stress on performance practices.
65.5% agree; 27.5% doubtful; 6.8% disagree
9. There is no opportunity for practical application of music history knowledge for the teacher whose work is principally with performing groups.
8.3% agree; 8.3% doubtful; 83.3% disagree
10. If a student can write a good history examination paper, he thus can prove a real grasp of the subject matter.
11.5% agree; 44.2% doubtful; 46.1% disagree

This whole group of questions shows a state of dissatisfaction with the present situation. Since the music education person's work on the job is most often largely concerned with performance, especially group performance, he should be able to apply his knowledge *to performance.* What he has or has not learned in his study of music history should not be divorced from practical application of knowledge gained. Many respondents took this position, and many kindly added explanatory notes to their questionnaires. Many of them felt that the knowledge of history as an isolated body of facts is not the object of the study of history; if the student can not apply the knowledge and perform works in proper style, then he has failed to learn much of his history in a meaningful way.

29. If an examination could be given at the end of the student's last year, what do you think the form of such an examination should be: written? oral? both written and oral? actual performance? Student to criticize performance (i.e., listening to

live or recorded performance, with discussions with the examiners)?

Written only	5
Written and oral	13
Performance only	1
Criticism only	5
Written, oral and performance	13
Written, oral and criticism	4
Performance and Criticism	4
Written, oral, performance and criticism	5
Oral, performance and criticism	1
Oral and performance	1

III. Miscellaneous

4. Music education majors need more work in methodology for *teaching* history to *their* students.
33.8% agree; 44.0% doubtful; 22.0% disagree

14. Music education students should have a written screening test at the end of the sophomore year to determine their needs in history.
53.4% agree; 27.6% doubtful; 22.4% disagree

17. Requiring more and better history preparation would keep many good musicians out of music education.
10.5% agree; 38.5% doubtful; 50.8% disagree

18. A detailed knowledge of history if necessary if the music education graduate is to teach General Music at the secondary level.
71.4% agree; 14.2% doubtful; 14.2% disagree

20. Much of what we teach in college music history should have been taught in the high schools or lower.
40.0% agree; 26.6% doubtful; 33.3% disagree

30. What is the climate for interest in history among your students: Do they have personal libraries of books? records? scores?
Does your faculty really encourage students to pursue diligent and scholarly study of history?
It is not possible to arrive at exact percentages on this question. However, *most* of the respondents reported that the climate for history study was somewhat cold. Only a few thought their students had much in the way of personal libraries of books; a few more thought their students rather well-supplied with records, and only a very few thought the students had scores in any quantity.
64.2% thought their faculties encourage intense study of history, but many of these qualified this remark with various statements. 35.8% are convinced that their faculties do not encourage study of history.

IV. The need for change

23. There is need to change present programming of music history courses. We are not giving adequate preparation in music history to the music education major.
55.1% agree; 29.3% doubtful; 15.5% disagree

24. **The College-University Division of MMEA should continue to study this problem, and make recommendations for improvement of the history situation.**
93.7% agree; 5.1% doubtful; 1.7% disagree

28. **Would your school be willing to cooperate in a pilot program to try new programming and testing in music history for music education majors?**
Only 35 persons answered this question; of course some of these are in the same schools. Of those who responded, 30 indicated that their schools would be willing to cooperate. Several persons added the condition which is recognized by all: that any change is subject to departmental approval, and administrative approval. We should recognize also that a testing program does not necessarily assume a change in course offerings.

SUMMARY

1. The response to the questionnaire indicates considerable interest in history teaching for music education majors.
2. 93.7% of the respondents feel that the College-University Division should work actively in this area.
3. Many respondents feel that the already-heavy course loads of the students may prevent course changes.
4. Notes added by many respondents indicate that they feel that the "climate" for history study is set by the faculty, and that some improvement could be gained simply by changes in faculty attitudes.
5. Notes added by many respondents indicate that they feel their course work is adequate. They feel that the fault lies somehow in the fact that faculty and students do not connect the history knowledge with the *practice* of music.
6. Several respondents note that they are willing to help in preparation of a testing program.
7. Other summarizing notes have been included throughout the present paper. Most of the responses are self-explanatory.

NB: The numbers used throughout refer to the numbers of the items in the original questionnaire.

RECOMMENDATIONS

1. It is recommended that the MMEA College-University Division actively work to improve the history training of music education students, especially in the area of practical application to performance.
2. Interested faculty members are asked to work on some kind of comprehensive examination which would demonstrate the student's ability to apply his history knowledge to the practical performance of music.
3. Missouri colleges should support a continuing program of evaluation in history teaching for music education majors. Reports of progress should be made to the College-University Division, with further reporting at the annual MMEA conference.
4. Articles pertaining to the work should be published in state and national journals.

MUSIC THEORY AND MUSICIANSHIP TEACHING IN MISSOURI COLLEGES AND UNIVERSITIES: A PRELIMINARY REPORT

Dr. Leon Karel
Northeast Missouri State Teachers College

In the winter of 1962-63, Dr. Lewis Hilton, then the Vice-President of the College-University Division of the Missouri Music Educators Association, asked the author to prepare a program for the 1964 MMEA Conference in Kansas City. While searching for a topic of wide interest, the area of college theory instruction commended itself. MMEA has traditionally been interested in this field, but in recent years little of positive nature has been proposed or carried out.

After surveying the field, the author decided that one crucial area concerned the "carry-over" of skills and knowledge from college classes into post-graduate professional work. In a letter and questionnaire sent to 84 theory teachers and music department heads in Missouri, it was proposed that colleges in this state adopt a Theory-Comprehensive Examination at the end of the senior year as a device to insure that students retain and improve what they learn in their course work. It was further proposed that this examination be of "practical" nature rather than deal with written exercises in the manner of traditional theory tests.

An actual comprehensive examination was sent along with the questionnaire. It contained nine "problems" in working theory as follows:

Problem One: You are watching a copy of the music as a soloist plays his part for you. Correct any errors in rhythm, pitch, or phrasing which you detect. The music will be of average high school contest difficulty.

Problem Two: You are given a fairly simple choral piece of not more than 16 measures for fifteen minutes of study. You are equipped with a chromatic pitch-pipe. At the end of the study period you will direct a small choral group in the number, correcting any errors they may make. Such errors may be in written parts. Indicate only starting pitches on pitch-pipe; sing other pitches and chords for the group. Demonstrate suitable conducting techniques on fermatas, meter changes, and so forth.

Problem Three: You are given a four-part vocal score in the chorale style. Starting with only the tonic pitch, study this score carefully for fifteen minutes. Then listen to a piano version pointing out errors in pitch and rhythm.

Problem Four: At the keyboard, harmonize a simple given melody with left hand chords. Continue beyond the normal ending by phrase extension, modulation, sequence, and so on.

Problem Five: At the keyboard, illustrate on request such theory features as types of chords, scales, modes, progressions, intervals, and so on. Be able to do the same vocally where applicable.

Problem Six: The same features of theory as in problem five should be illustrated on your major instrument. If this is either voice or piano, this problem may be omitted.

Problem Seven: Arrange a given melody of simple nature for either band or orchestra in full score, using various types of accompaniment, harmonic variety, simple counterpoint in a counter-melody, and so on. The work should take one day, done under supervision.

Problem Eight: Using a given theme as a beginning, write a piece of music illustrating your knowledge of small forms. The piece should approximate 60 measures. A paino should be used only occasionally as a help in checking.

Problem Nine: Listen to various pieces of music selected by the examiner. Some of these may be familiar, some may not. Write down the themes, motives, instrumentation, styles, periods, probable composers, and analyze their forms.

Of the 84 people to whom the material was sent, 52 answered the questionnaire, a return of 61.9%. Their answers and suggestions may be grouped into six sections, each dealing with a different phase of the problem. Under each section the answers to those questions dealing with that section will be given.

Section One: Carry-over from college to profession of music theory instruction.

Question 1. 57% of those responding feel that college music graduates do not practice what they were taught in their theory courses. 15% feel they do. 28% are doubtful.

Question 2. Only 7% agree with the statement that our colleges are teaching the wrong things in theory classes. 53% disagree with this idea, and 40% are doubtful.

Question 3. 62% feel that music educators specifically do not pass on to their own students what they were taught in college theory courses. Only 4% feel they do. 34% are doubtful.

Section Two: The content of college theory courses.

Question 4. 31% agree that college theory classes are teaching the right material but taking the wrong approach. 29% disagree with this statement, while 40% are doubtful.

Question 5. 63% agree that most college students are not motivated to learn theory as strongly as applied music. 15% disagree, and 22% are doubtful.

Question 6. Only 9% agree that applied music is of greater importance than theory to the high school teacher. 84% disagree, and 7% are doubtful.

Question 7. As to the statement that music education students should have different theory requirements from other types of music students, 62% disagree, 15% agree, and 11% are undecided.

Question 8. Only 9% agree that a music education major needs more theory than other types of major. 67% disagree, while 15% are undecided.

Question 9. 71% agree that music education people and private teachers need the same type of theory in college. 20% disagree, while 9% are uncommitted.

Question 10. 82% agree that much of what we teach in college theory should have been taught in high school or earlier. 7% disagree, while 11% are doubtful.

Question 11. 9% agree that more work in "how-to-do-it" courses (strings, woodwinds) is needed rather than more work in theory. 53% disagree, while 20% are uncommitted.

Section Three: The MMEA College-University Section and the College Theory-Pedagogy Program.

Questions 12, and 13. 81% of those responding felt that the MMEA C-U Division ought to work actively to raise standards.

Section Four: The Theory-Comprehensive Examination.

Question 14. Only 7% felt that the proposed examination would be too difficult. 79% felt that it would not be, while 14% were doubtful.

Question 16. Respondents were heavily in favor of the "doing" aspects of the test, as opposed to more traditional written exercises. 64% agreed with this idea of the exam, while 14% agreed with the traditional type. 17% were uncommitted.

Question 17. No one agreed with the statement that a student preparing for a career in performance would be wasting time on preparing for such an examination. 93% disagreed with this idea, while 7% were undecided.

Question 18. 93% disagreed that the student going into private teaching should not take such an examination. 2% were doubtful.

Question 19. 10% agreed that the pre-private teacher should have a theory exam., but of a different type. 60% disagreed, while 26% were doubtful.

Section Five: The Comprehensive Examination in the Respondent's Own College.

Question 20. Only 7% agreed that the theory teaching "at home" is effective and that no comprehensive is needed. 60% disagreed, and 26% are doubtful.

Question 21. 17% agreed that, though the plan is a good one, it would not work locally for various reasons. 38% disagreed with this statement, while 38% were in doubt.

Question 22. 66% disagreed with the statement that the examination looked difficult and would scare away music majors. 14% agreed, while 22% were undecided.

Question 23. 60% thought the theory-comprehensive idea would improve the theory work in their college. 2% thought it would not. 38% were in doubt.

Section Six: Changes in the Theory-Comprehensive Examination

Question 15. 26% agreed that more requirements ought to be added, 39% thought they ought not, while 33% were undecided.

Question 24. 16% favored the theory examination at the end of the sophomore, rather than the senior year. 37% disagreed, and 29% were doubtful.

Question 25. 66% thought there should be both a sophomore and senior theory-comprehensive examination. 2% disagreed, while 22% were doubtful.

Question 26. 38% thought students ought to be allowed more use of piano during the exam. 22% disagreed, 27% were doubtful.

Question 27. Only one problem received more than one vote for elimination from the exam. This was #9, which received two votes.

Question 28. As for problems which should be made easier, there were 7 votes for #4 (14%), a similar number for #8, and 18% for #9. Only four problems received one vote each on the second part of this question, asking for those which should be made more difficult.

Question 29. Here the respondent was asked to add items he thought should appear on the examination. Answers included:

> Transposition of four-part music, score reading, correcting errors while listening to ensemble music as well as solo, arranging for choral groups, proficiency in harmonic and structural analysis, reading of choral parts at the keyboard, piano rendition of pre-assigned scores, practice demonstration of theory teaching in the classroom, listening analysis of sylistic differences in music, dictation in four parts, rhythmic dictation, written formal analysis of larger forms, usage of contemporary idioms, and others.

SUMMARY

1. The fact that 61.9% of those sent the questionnaire responded indicates a general and vital interest in theory teaching in this state.

2. The fact that 81% feel that the MMEA College-University Division should work actively in this area gives a clear mandate to proceed with the work.

3. A lack of motivation on the part of the student is clearly indicated by many who answered. 63% felt that applied music learning was more strongly motivated.

4. The great majority felt that theory is vital to the education of both music educator and private teacher.

5. It is largely agreed (83%) that what is now taught in college theory courses should have been taught earlier. In turn, 62% feel that our students do not pass on what they were taught in our classes.

6. The respondents are definitely in favor of the comprehensive exam in theory at both sophomore and senior levels (66%) and feel that it is not too difficult (79%). It should be a practical rather than "theoretical" exam (64%) and that preparing for it would not waste the students' time (93%).

7. However, faced with actually implementing such an exam in our own colleges, we agree that our local programs are not as effectvie as they should be (60%) and are in need of such an examination. On the other hand, we felt dubious about the workability of the plan in our own school (38% for, 38% doubtful). Few thought it would "scare off" majors (14%) and many (60%) thought it would improve theory teaching if it were implemented locally.

8. Roughly a third felt that more requirements should be added, while another third felt they should not. 38% felt that more aid in the form of piano usage should be allowed the student at examination time.

RECOMMENDATIONS

1. It is recommended that the MMEA College-University Division actively engage in improving the quality of theory work done in its area, with the following provisions:

a. Revision of the proposed Theory-Comprehensive Examination in conformity with suggestions sent in by those who responded, this revision to be printed and distributed to the colleges of the state with requests that the program be put into operation on a pilot scale in each institution where possible.

b. A continuing program of evaluation of these new theory programs by means of reports to MMEA College-University Division from the colleges involved. A report of progress to be made annually at the MMEA Conference.

c. Publication of articles pertaining to this work in *Missouri School Music* and the *Missouri Journal of Research in Music Education*, as well as in national publications.

2. It is recommended that the MMEA Constitution be amended to place specifically, the responsibility for the above program on the *College-University Division Vice-President* in order to insure that successive officers will know their obligation.

MUSIC STUDENT TEACHING PRACTICES IN MISSOURI COLLEGES AND UNIVERSITIES

A Preliminary Report

Dr. Lansing W. Bulgin
Northeast Missouri State Teachers College

I. The Study
- A. Problem: to determine current practices in student teaching in the preparation of secondary school music teachers in Missouri.
- B. Means used in collecting data: questionnaire; distributed to the colleges October 1963.
- C. Population and response: 17 of 20 colleges in the state which offer a music education curriculum on the secondary level replied, representing 85% response.

II. Findings Concerning Enrollments, Credits, and Time Requirements
- A. Music education comprised a majority function of music departments
  1. One-half of the colleges reported that 90% or more of their music majors were preparing to teach. The over-all average was 78% of the music majors majoring in music education.
  2. The average number of students completing student teaching last year was 9. The range extended from 1 to 22. No further attempt was made to determine the relative size of the music enrollments or the music education programs in the colleges.
- B. Credit
  1. The minimum credit required in student teaching for secondary school certification ranged from 5 to 8 semester hours. The average and most frequent requirement was 6 hours.
  2. As much as 10 hours may be taken in some colleges.
- C. Clock hours required
  1. Although relatively little deviation existed in the number of credit hours given for student teaching, the actual time spent on the job varied considerably. The total clock hours required of student teachers varied from 150 to 330. The variance of time was not necessarily reflected in proportionate adjustments in credit, for in both cases the extremes (150 and 330) were required for 6 hours of credit.
  2. The average was 222 hours of student teaching. See Table I for distribution of hour and credit requirements.

     Note: For the most part the total clock hours were calculated from the hours-per-day times the number of weeks required, or in the case of full time teaching on the basis of six hours per day. Therefore these figures actually represent *allowable minimums*. This is substantiated by the fact that 12 colleges reported that student teachers are generally expected to be on the job *outside* of school hours whenever the cooperating teacher is working with students.

TABLE I

DISTRIBUTION OF CLOCK HOURS AND CREDIT REQUIRED BY SEVENTEEN COLLEGES

Hours	*Credit*	*Number of Colleges*
330	6	1
270	8	1
270	6	3
270	5	1
240	6	1
210	6	1
195	5	1
180	6	2
180	5	1
160	5	1
150	6	1
150	5	2
Undetermined	6 & 7	2

3. Pattern of time distribution
   a. The pattern employed in distributing the required time varied from one hour per day for 18 weeks (plus a substantial amount of observation and conference time) to all day for 11 weeks.
   b. The most common pattern was that of half-day student teaching extended over the semester (or term).
   c. Four colleges utilized the "block" system in which the student was on the job the entire day. The shortest block period was 6 weeks, the longest was 11.
4. Satisfaction with present arrangement
   a. Half of the respondents replied that they were not.
   b. Comments were:
      1) Over-all period too short (coming from college employing a six weeks period and from one utilizing a semester)
      2) Would prefer block system
      3) Block system takes students away from the campus
      4) Assignment can be spread out too much
      5) Student teaching should be 300 hours to involve two semesters
      6) Students have too many other responsibilities (11 hours of class work) during student teaching
      7) Would prefer shorter day over a longer period (now half day for 16 weeks)

D. Year in which student teaching is taken
   1. At 14 of the colleges (82%) student teaching is always taken in the senior year.
   2. At the other three colleges this was the usual practice, however exceptions were allowed:
      a. In the junior year (two colleges)
      b. In graduate school (one institution)

E. Student course load during student teaching
   1. In 13 colleges student teachers carried other class work along with student teaching.
   2. Only in the colleges employing the block system was the student free to concentrate on student teaching responsibilties.

III. Findings Concerning Schools Used for Student Teaching

A. Types of schools used
   1. Seven colleges used college-operated schools (sometimes called laboratory schools).
      a. Of these seven, six were state colleges, one private.
      b. Five of these seven also placed students in public schools.
   2. Fifteen colleges used public schools in the college community.
   3. Eleven used public schools in other communities

B. Use of "home" high school
   1. Eleven of the colleges utilizing schools in other communities did not allow the student teacher to return to the high school from which he had graduated for his student teaching assignment.
   2. One respondent answered that they did allow it when possible and advisable.

C. Number of cooperating teachers usually invloved

Colleges were nearly equally divided: nine indicated that student teacher usually worked with only one cooperating teacher; eight stated that more than one was usually involved in the assignment.

D. Criteria employed in selecting schools and cooperating teachers
   1. Qualifications to be met by the school:

	Number of Colleges
All around completeness and strength of music curriculum	7
Full time music teacher in the school	2
Classified as AAA school	1
Any school	1
At the request of the student in some cases	1
Culturally minded district and administration	1
Private or parochial schools for religious emphasis	1

   2. Qualifications to be met by the cooperating teacher

Desire to work with student teachers	4
Demonstrated success of teacher's work	4
General professional reputation of the teacher	2
Master's degree completed or in progress	2
Experience in teaching and in present position	2
Recommended by administration of cooperating school	2
Master teacher and musician	2
Approved by Coordinator of Student Teaching (College)	1
Approved by Chairman of College Music Department	1
Musicianship and administrative ability	1
At least one year of teaching experience	1
Match student teacher and cooperating teacher	1

IV. Nature of Student Teaching Assignment

A. Influence of student preference on assignment

1. **The student's area of performance (vocal, instrumental) and grade level preference influenced the assignment to a "considerable" degree in ten colleges.**
2. **Six respondents replied that it influenced to "some" extent, and one stated "not at all."**

B. Breadth of assignment relative to grade levels

1. **In eight colleges the student teaching assignment included experience at all three levels (elementary, junior high, and senior high).**
2. Three colleges restricted the teachnig to senior high level only.
3. One used junior high only.
4. One included elementary and junior high or senior high.
5. One placed student teachers in junior high and senior high.
6. At one college, student teacher was assigned to level of interest only.

C. Typical distribution of assignment as related to areas of instruction

The comparative amount of time spent in the three major areas of musc was indicated in terms of percentages. The areas were identified as: 1) Area of own performing medium (if vocalist, choral music); 2) Performing area opposite his major interest (if vocalist, instrumental music); and 3) General music theory, music appreciation, etc.

1. In the area of major interest, the average was 60%, with the range from 25% to 100%. The most common percentages reported were 75% and 50%, each by three colleges.
2. An average of 22% of the time was assigned to the opposite performing area. The distribution extended from 0% to 40%.
3. An average of 18% was devoted to general music, or the non-performance music classes. The range in this instance was from 0% to 50%.

Note: In presenting such statistics it is recognized that any of these percentages does not necessarily constitute a fixed pattern of distribution in any one college, for many factors tend to affect an attempted generalization. The results do bear out, however, that in practice the student spends a majority of his time in the area of his principal interest and supported, in some cases at least, by substantial time in the other areas.

Question: Should we attempt to prepare students to be qualified in all areas of music — and provide student teaching experiences distributed appropriately to accomplish this? Perhaps item D below is one indication. The respondents were asked, "What distribution do you consider the most desirable?"

D. Desirable distribution

1. The distribution was slightly more balanced than that practiced.

2. The averages were 55% in major area, 23% in opposite medium, and 22% in general music.
3. In comparing the ranges of practice with desirability, one finds more agreement in desired pattern than in practice. As is illustrated in Table II, there was less range difference in the desired pattern as well as a more concentrated grouping of response within the more restricted ranges.

E. Types of teaching situation usually included in the assignment
The respondents were asked to indicate the extent to which student teachers usually participated in five common teaching situations. In Table III is shown the frequency and the extent of such participation as reported by the 17 colleges.
Note: As might be expected the preponderance of response was recorded for "great" and "some" combined; however, the large frequency of "some" would lead the observer to question why "great" emphasis was not placed on *all* of these situations — or at least the first three.

F. Distribution of time spent in observation as compared with cooperative or indepndent teaching
1. The range of percentage of time devoted to observation (as a part of student teaching) was 20% to 70%. The average was 43%.
2. Accordingly, the range of the percentage of time spent in actual teaching was from 30% to 80%, with an average of 57%. These figures were based upon 15 returns.

TABLE II
FREQUENCY DISTRIBUTION OF FOURTEEN COLLEGES INDICATING PRESENT PRACTICE AND DESIRED PATTERN IN TERMS OF PERCENTAGE OF STUDENT TEACHING TIME DIVIDED INTO THREE INSTRUCTIONAL AREAS

Percentage of Time	*Major Medium*		*Opposite Medium*		*General Music*	
	Present	*Desired*	*Present*	*Desired*	*Present*	*Desired*
100	1					
75	3	1				
65	2	1				
60	2	3				
50	3	7			1	
45		1			1	
40			1			
35			1	1		
33	1					
30			2	3		1
25	1		4	5	4	6
22			1			
20				2		2
15			2			
10			1	1	3	2
5					1	
0			2	1	3	1

TABLE III
FREQUENCY AND EXTENT OF PARTICIPATION IN FIVE COMMON TEACHING SITUATIONS

Teaching Situations	*Great*	*Some*	*Little*	*None*
Rehearse large ensembles	6	10		1
Rehearse small ensembles	7	6	3	1
Teach private lessons, coach individual students	3	8	4	2
Teach classroom music non-performing group instruction)	9	5	2	1
Assist in special musical shows, concerts, festivals	3	12	2	

G. Written records required of student teachers
   1. No accounting sheets or records were required by four colleges.
   2. Eleven required an accounting of the student's total time spent.
   3. Ten required the student to submit a "log" or notebook in which the student's activities had been recorded.
   4. Nine required an accounting of the distribution of time spent in the various activities.

H. Requirement of lesson plans (lesson outlines)
   1. Lesson plans not required by four colleges
   2. Thirteen colleges required written lesson plans for classroom music.
   3. Three colleges required written lesson plans for rehearsals and classroom teaching.

V. Findings Concerning the Evaluation of Student Teaching
   A. Four colleges employed a check list or written statement of student teaching activities which served as a guide to assure a complete student teaching experience.
   B. Evaluation of the student's achievement
      1. Only six colleges utilized evaluative criteria designed especially for music student teaching.
      2. Of the nine remaining colleges, only four indicated that they used a standard form shared by the other departments of the college.

      Question: Can it be presumed that for the seven colleges not answering in the affirmative, no systematic evaluation of the student teacher is made?
      What is the nature of the evaluation that is made? Is it anything other than deciding on a grade?

VI. Supervision of Student Teaching
   A. In-service program by which student teaching program is coordinated

   Six colleges reported that in-service education sessions were held for the benefit of cooperating teachers. The arrangement for such sessions were:

   1. CMSC required a graduate course to be taken by cooperat-

    ing teachers: Supervision of Student Teaching; upon request one meeting per year is arranged at the school; one evaluation meeting is held per year.
  2. Culver-Stockton held between 2 and 4 meetings per year, if the maximum number were held, they were spaced at nine-week intervals.
  3. Evangel held a meeting each semester—at midterm.
  4. SEMSC, once per year.
  5. Central Methodist, once during the year (no set time).
  6. Fontbonne, no explanation.

B. College representatives responsible for supervision
  1. In six colleges, music faculty member(s) ONLY supervised.
  2. In six colleges, the supervision was a joint responsibility between music and education departments.
  3. In five colleges, some member of the education faculty was the ONLY supervisor.
  4. Further breakdown showed that in:
     a. Nine colleges where music faculty supervised, one person did both vocal and instrumental.
     b. Four colleges where the music faculty supervised, two persons were used, one for vocal and one for instrumental.
        (Response totals do not agree with 3 above because CMSC utilizes both arrangements: one person for off-campus, and two people for on-campus supervision.)

C. Duties of the college supervisor.
  1. All held conferences with student teacher.
  2. Sixteen reported that they made periodic visits to the student teacher.
  3. Sixteen observed student at work, criticized, evaluated, and advised the student.
  4. Fourteen used written and oral criticisms-suggestions.
  5. Twelve held conferences with the cooperating teacher(s).
  6. Twelve served as resource persons for student teacher.
  7. Nine consulted with school administration.
  8. One used oral criticisms only.
  9. Other duties and/or techniques were:
     a. One conducted a Seminar in Education which was used as a critique period.
     b. One demonstrated various teaching techniques (laboratory school).
     c. One music supervisor held frequent conferences with education faculty supervisor.
     d. One held weekly seminars for all student teachers.

D. Frequency and length of visits by supervisor
  1. Because the student teaching period varied from 6 weeks for some colleges to as much as 18 weeks for others, direct comparison as to the number of visits perhaps should not be made. However, the range of the number of visits as reported by 13 colleges extended from 0 to 12. The average number was 4.5.

2. **In a further attempt to determine the extent of the supervision which was provided for the student teachers, the respondents were asked to indicate the usual length of a visit — excluding whatever travel time might be involved.**
   a. The length of visits ranged from one-half hour to half a day.
   b. The distribution was bi-modal in that the two most common lengths of visits were one hour and two hours (five colleges each).
   c. The average visit was 1.5 hours.

E. Teaching load of college supervisors during student teaching period
   1. A most important factor involved in adequate supervision is having the necessary time released from campus responsibilities in which to carry out supervision. The respondents were asked to indicate the number of hours per week they taught during the time the student teachers were in the field.

      The average was 5.6 hours per week with a range from 2 to 15 hours per week.
   2. In two colleges, the supervisors carried a full load of classes at the time they were supposed to be supervising student teachers!
   3. No attempt was made to determine whether there existed a class load reduction scale based upon the number of student teachers enrolled. (NEMSTC has no such thing.) If such a scale were in operation, this might account, at least in part, for an apparent lack of released time in six colleges.

VII. Individual Characteristics Contributory to Success and Failure

The respondents were asked to indicate those characteristics which seemed to them to be particularly significant in the success and in the lack of success in student teaching. Table IV is a frequency distribution of the qualities of success. In Table V is presented the list of qualities thought to be most significant in a student teacher's lack of success.

TABLE IV

QUALITIES MOST CONTRIBUTORY TO SUCCESS IN STUDENT TEACHING

Qualities	*Frequency*
Thorough knowledge of subject matter	7
Solid musical background	4
Pleasing personality	4
Competence in applied medium	3
Willing to give freely of his time	3
Love for children, real interest in working with students	3
Organizational ability	2
Love of teaching	2
High intelligence	2
Personal ability	2
High degree of musicianship	2

Loyalty of purpose	2
Methodological skills	1
Ability to work with other people	1
Ability to communicate	1
Breadth of knowledge	1
Ability to stimulate interest of students	1
Ability to apply knowledge appropriately	1
Sincerity	1
Enthusiasm	1
Emotional maturity	1
Adaptability-versatility	1
Proper ethical attitude	1
Academic competence	1
Ability to achieve good classroom management and discipline	1
Strong character	1
Good public relations	1
Strength in educational psychology	1
Knowledge of history and theory	1

TABLE V

QUALITIES MOST CONTRIBUTORY TO LACK OF SUCCESS IN STUDENT TEACHING

Qualities	*Frequency*
Not knowing subject matter	6
Lacking a pleasing personality	4
Unable to stimulate interest in students	2
Lacking competence in applied medium	2
Lacking in leadership development	2
Poor musical background	2
Lack of ability to produce	2
Lacking pianistic skill	1
Not having a real interest in children	1
Lacking organizational ability	1
Lacking in industry	1
Lacking the ability to work with other people	1
Not able or willing to cooperate	1
Lack of emotional maturity	1
Carlessness	1
Selfishness	1
Lack of adaptability	1
Poor ethical attitude	1
Failure to achieve academic competence	1
Unable to achieve good classroom management and discipline	1
Unable to see one's own ability to succeed	1
Ill health	1
Lack of knowledge of history and theory	1

VIII. Findings Concerning Financial and Budgetary Arrangements

A. Monetary remuenration for cooperating teachers

1. **Ten colleges gave no remuneration to teacher; however, one of them paid the** ***school*** **$15. per student.**

2. Five colleges did pay cooperating teachers. The gratuity ranged from $25. to $100. per student per term. Of the five, four were state institutions.

B. Source of funds to pay remuneration

1. Two colleges used monies from the general operating budget.

2. Three colleges levy a student teaching fee to be paid by the student.

a. For two of these colleges, such student teaching fee supplements funds drawn from operating budget.

b. At one college, monies are drawn from student fees, the nature and amount of which were not determined.

C. Recognition given in lieu of remuneration

1. Of the nine colleges paying no gratuity to off-campus cooperating teachers, seven did give some sort of compensating recognition. Included were:

a. Tuition credit ranging from $10. to $165.

b. Complimentary admission to athletic and special events, and use of college services.

c. Dinner, given by two colleges.

d. Names of cooperating teachers were listed in the college catalog.

2. Two colleges paid no remuneration nor did they provide any other token of recognition.

IX. Tentative Conclusions, Observations

A. No attempt was made to survey grading criteria or grading procedures, but in light of the response relative to evaluation of student teachers, further investigation of evaluative criteria, means, policies, and the like seem to be in order.

B. There is a most inequitable proportion between the number of working hours required in student teaching and the amount of credit given for it.

C. There should be continued effort toward providing qualified music educators to supervise music student teachers.

D. There is interest from several colleges relative to the adoption of the block system of student teaching.

E. Each college should establish standards and means whereby the highest caliber of student teaching experience will be achieved. Such standards should be related to the comprehensiveness and quality of the experiences, the selection of cooperating schools and teachers, and the supervision of the student teachers.

Colleges Cooperating In This Study

Central Methodist, Fayette
Central Mo. St. College, Warrensburg
Culver-Stockton, Canton
Drury, Springfield
Evangel, Springfield
Fontbonne, St. Louis
Lincoln University, Jefferson City
Lindenwood, St. Charles

University of Missouri, Columbia
NE State Teachers, Kirksville
NW State, Maryville
SE State, Cape Girardeau
SW State, Springfield
St. Louis Inst. of Music
Tarkio, Tarkio
Washington University, St. Louis
Webster, Webster Groves

BASES FOR THE APPEARANCE OF MUSICAL INSTRUMENTS IN VISUAL WORKS OF ART
PREFATORY REMARKS

Dr. Eugene E. Rousseau
Central Missouri State College
Warrensburg, Missouri

It is not the purpose of this article to delve into the history of musical instruments inferred from paintings, drawings, and sculptures of various periods. There are areas which have already justified the prodigious efforts of musicologists' investigations. However, considering another facet of musical iconography, there has been relatively little research undertaken which deals with the bases of the artist's selection of musical instruments in visual works of art. It is the writer's hope that this brief investigation of these bases may prove to be stimulating, and that it may serve to give some indication of the great amount of work which may yet be done in this field. *Editor's note: This paper will be of particular interest to Missouri College and University music teachers who are engaged in training students to teach the Allied Arts Curriculum. (see Missouri Journal of Research in Music Education Volume* 1, *Number* 2.

INTRODUCTION

There are countless example of music in pictures. They are present everywhere, as one is cognizant through observations made in the course of everyday life, and through a considerable number of writings on this subject. Kinsky's work[1] represents but one of these many endeavors.

It is an interesting fact that musical instruments were frowned upon by the Medieval Christian Church, yet they were used frequently as symbols in writings by the Church Fathers. From the sixth to the thirteenth century, a tremendous number of pictorial representations of instruments can be found in music outside the church. An outstanding example of this category is the thirteenth-century Spanish codex of *cantigas,* displaying a large variety of instruments of the time in its numerous pages of miniatures.

Concerning a later era, Apel states:

> As regards the 15th century, our knowledge is in the main restricted to what has been recorded by the painters and drawers, particularly in their numerous representations of "celestial harmony" showing beautifully shaped and decorated instruments in the hands of angels.[2]

This sentence by Apel is a succinct and manifest statement of the musical historian's position. However, it appears that an intriguing, and perhaps more complex, problem arises in determining *why* specific instruments are used by painters and sculptors.

With this purpose in mind, this article will deal with one exam-

ple of musical instruments in art, that of the *Cantoria* in the *Museo del Duomo*, Florence, done by Luca della Robbia. Prior to this discussion, brief and selected examples of ancient and medieval views regarding musical instruments will be given.

ANCIENT VIEWS

A discussion of the ancients' views concerning musical instruments is requisite for a more complete understanding of this study. Moreover, an investigation of these views and beliefs is, in itself, a very interesting and rewarding undertaking.

In the writings of Plato and Aristotle are found some revealing statements, one of the most pertinent being in *The Republic, I* of the former. Regarding what instruments and instrument makers shall be accepted into the ideal society, this section of the dialogue is summed up as follows: " . . . We are not innovating, my friend, in preferring Apollo and the instruments of Apollo to Marsyas and his instruments."[3] The Apollo-Marsyas story shows not only a difference between sounds of the stringed and wind instruments, but, as Winternitz cites, it also shows measure — in the Pythagorean sense — and in the metaphorical sense of measure, as opposed to blind passion.[4]

The wind instrument which Marsyas played in his contest with Apollo, the *aulos*, appeared to be winning over the lyre until Apollo spoke while playing, challenging Marsyas to do likewise. Then Apollo turned his lyre upside down and again challenged Marsyas to play his instrument in this manner.[5]

> . . . the aulos is not a moralizing but rather an exciting influence, so that it ought to be used for occasions of the kind at which attendance has the effect of purification rather than instruction.[6]

"Plato's writings had made clear for all time that the flute stood for Dionysiac sensuousness . . . Temperate values are symbolized by the lyre or cithara of Apollo."[7] In his authoritative work on musical instruments, Sachs, discussing Hellenic culture, describes the lyre in detail as the "chief divine instrument."[8]

These observations are important to a more unequivocal understanding of later historical and cultural developments. Apparently, the relative status of stringed and wind instruments in Western culture had its groundwork laid in these ancient views.

MEDIEVAL AND RENAISSANCE VIEWS

Kathi Meyer has brought to light a fascinating study done by a German scholar during the first decade of this century.[9] Essentially, this study is a comparative one dealing with musical instruments found in medieval illuminations, and exemplifies types of instruments that were drawn for these illuminations.

At the beginning of the eleventh century, instruments from antiquity were the basis for these drawings, such as those found in manuscripts from the Carolingian era. From about the year 1000 on, Buhle finds that modern instruments are depicted, the biblical *rebec* of David, for example, being replaced by the *lyre* or *psaltrey*. This survey continues to show a kind of cyclical development, with the thirteenth century again using antique instruments, the fourteenth and fifteenth centuries employing modern instruments, and a revival in the sixteenth and seventeenth centuries of the tendency to model instruments after examples from antiquity.

With Buhle's findings as a reference, it is of interest to note the instruments appearing in the sculptures at Cluny, ca. 1000; for, appearing at a transitory point in Buhle's thesis, they follow both trends. Concerning the third mode from the eight on the Cluny capitals, "the instrument has a slight similarity to the form of the antique *lyra*, an instrument sometimes held by Orpheus-Christos."[10]

Visual art in the Middle Ages is almost exclusively sacred art. However, scenes from everyday life and various amusements managed to find their way into a number of visual works. In Pucelle's illustrations in the *Hours* of Jeanne d'Evreaux,

> . . . . a surprising number of creatures, human or beastlike or compound, are engaged in playing musical instruments. Surprising, that is, to the spectator who is not familiar with the teeming, colorful musical life of the Middle Ages, and especially with the number and variety of musical instruments as compared with the standardized specimens which make up our modern symphony orchestra.[11]

Finally, in the Middle Ages, certain musical instruments become established as symbolic, and some have retained this symbolism to the present day. For example, the reed pipe — *shawn* or *chalumeau* — is the typical shepherd instrument, and has become symbolic in Christian iconology of the nativity scene.

Referring to later works of art, Haward takes the view that musical instruments are sometimes utilized in a painting without any specific connection to their actual function or of their symbolism, "for purposes of purely formal design."[12] He cites the instruments in Bosch's *Inferno,* both stringed and wind, being "transformed into monstrous instruments of torture", or the purely decorative features of the instruments, as additional pieces of furniture, in Jan Brueghel's *Allegory of Hearing.*[13]

Many more illustrations could be pointed out from the past 100 years or so, but it is the purpose of this cursory examination to establish a point of departure for a discussion of the musical instruments employed by Luca della Robbia in the *Cantoria* at Florence.

THE CANTORIA DEL DUOMO

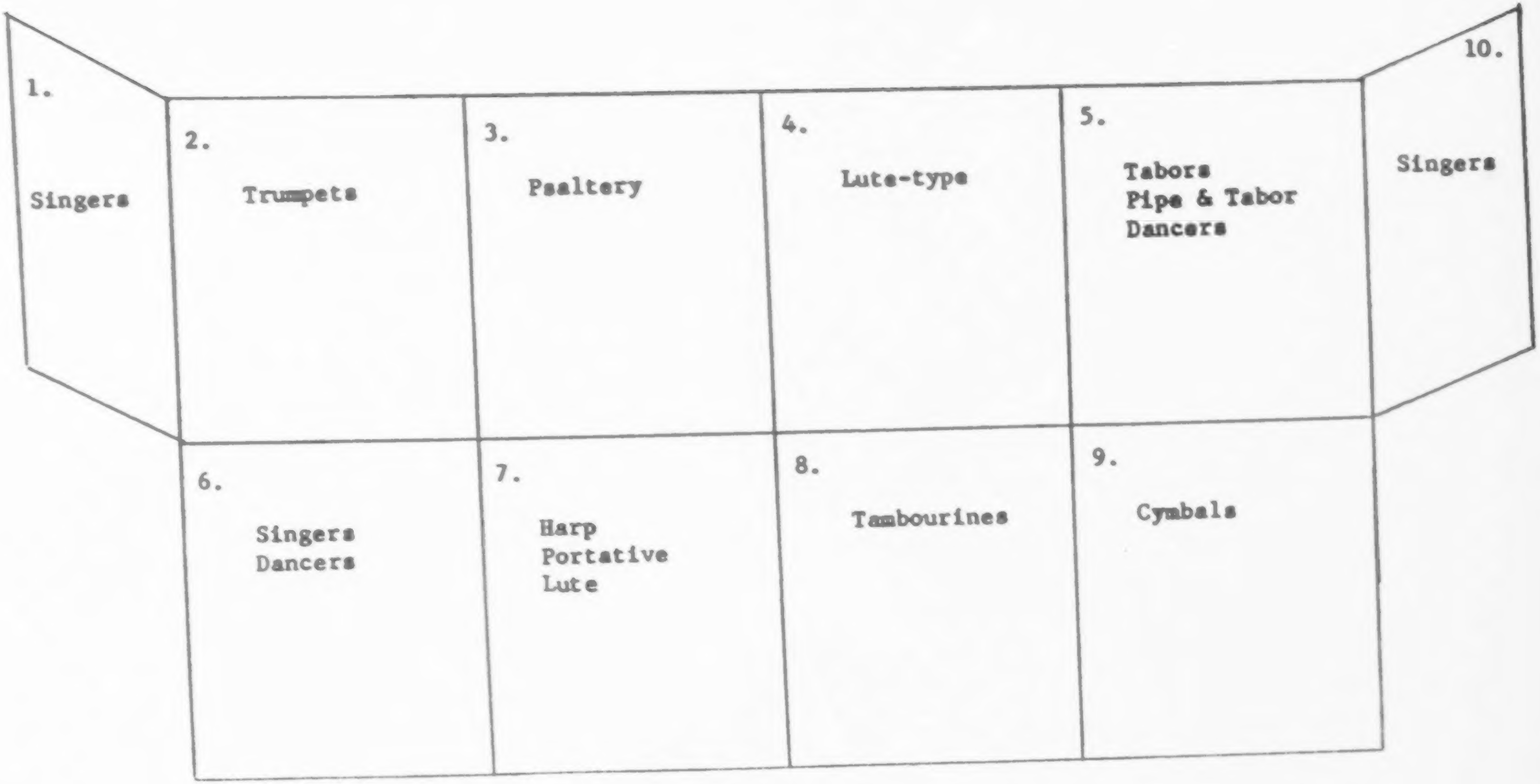
The *Cantoria* of Luca della Robbia was commissioned in 1431, and is the first known sculpture by the artist of which the exact date can be ascertained.[14] There is no trace of any competition involved, and Luca's other commissions by the Duomo Church indicate that he was a favorite sculptor in their eyes.

The work was completed in 1438 and remained in its rather inaccessible position until 1688. At this time it was removed for the wedding of Prince Ferdinando because a larger choir was needed. The panels were thus removed to storage where they remained until 1822. It was not until 1883 that a serious attempt at restoration was made by Professor Luigi del Moro. Owing to Professor del Moro's work, the *Cantoria* has been restored, although now in a different position in the *Duomo*, and under different lighting conditions.[15]

With regard to style, a comparison of Luca with two of his contemporaries, Ghiberti and Donatello, reveals several interesting points. In particular, the comparison between Luca della Robbia and Donatello is heightened because Donatello also did a *Cantoria* for the *Duomo*. Marquand notes that Luca's *Canoria* reliefs were begun several years before those of Donatello.[16] Yet, Donatello undoubtedly had an influence upon Luca's art, although the latter was more restrained, as can be seen, for example, in the dancing children. Furthermore, Donatello, unlike Luca, tends to suggest the indefinite expansion of space. Luca is also unlike Ghiberti who crowds as many figures as possible into a single picture. Luca was apparently content with few figures, simple themes, and restricted space.[17] In general, Schubring's work on Luca makes these same observations.[18]

Of the authors of writings dealing with Luca della Robbia, those already cited — namely, Maud Crutwell, Allan Marquand, and Paul Schubring — have all done their research during the early part of this century. All of them are very occupied with the fact that the moldings, pilasters, and decorative material which presently surround the panels are not original.

None of these three is concerned with the arrangement of the panels in the *Cantoria*, although there is a difference of opinion as to how Robbia arrived at this order. Marquand and Crutwell feel that the order follows Biblical scripture in numerical sequence (as illustrated by the diagram below). This is borne out by the Latin inscription which is found above and below the eight panels.


1.
Singers
2.
Trumpets
3.
Psaltery
4.
Lute-type
5.
Tabors
Pipe & Tabor
Dancers
10.
Singers
6.
Singers
Dancers
7.
Harp
Portative
Lute
8.
Tambourines
9.
Cymbals

Luca della Robbia's CANTORIA

Diagram of Panels

Psalm 150

Laudate Dominum in sanctis eius,
Laudate eum in firmamento vitutis eius,
Laudate eum in virtutibus eius,
Laudate eum secundum multitudinem magnitutis eius.
Laudate eum in sono tubae.
Laudate eum in psaltheriis et cithara.
Laudate eum in tympano et choro.
Laudate eum in chordis et organo.
Laudate eum in cymbalis benesonantibus.
Laudate eum in cymbalis jubilationis.
Omnis Spiritus laudet Dominum.

Praise ye the Lord.
Praise God in his sanctuary; praise him in the firmament of his power.
Praise him for his mighty acts; praise him according to his excellent greatness.
Praise him with the sound of the trumpet; praise him with the psaltery and the harp.
Praise him with the timbrel and the dance; praise him with stringed instruments and organs.
Praise him upon the loud cymbals; praise him upon the high sounding cymbals.
Let everything that hath breath praise the Lord.
Praise ye the Lord.

Schubring, on the other hand, has a more complex theory which he bases upon the orchestral arrangement of various wind, string, and percussion groups. This thesis might lend itself to credulity were it not for the fact that until approximately 1600, purely instrumental music held a position of inferior importance, while the indiscriminate mixture of voices with instruments was not at all uncommon.

Aside from a few general statements regarding musical instruments in the *Cantoria*, none of these writers makes any appreciable comments along these lines. Crutwell refers to the arrangement of the instruments by stating:

> Luca has no more lost sight of the orchestral effect than of the balance of composition, the loundest sounds — the trumpets, drums, and cymbals — coming from the outside reliefs, while the softer cadences of voice, harp, and lute are concentrated in the centre.[19]

In fact, a lack of detailed analysist of the instruments is also apparent by what little is said about them. For example, Marquand refers to panel four as being players on the *cithara*, and adds further that these instruments have five strings each. True, the Bible refers to *cithara*, but the instrument which Luca actually used is a lute-type as discussed below.

Panels, 2, 3, 4, 5, 7, 8, and 9 contain musical instruments, and comments on each of these will be given. *Panel two, trumpets*: This

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instrument was very common in Roman times, and its use as a noble and majestic symbol is common, even in the present day. After 1000 A.D. it acquired a long slim shape, about four feet, with a funnel-type bell. But, it will be noticed that two types of trumpets are utilized by Luca della Robbia. The second type, appearing behind the Roman type, is the folded trumpet, an innovation of the early fifteenth century, and the prototype of trumpets since then. Thus, both the old and new are represented, and in each case the puffing of the players' cheeks adds a dynamic touch to the sculpturing. *Panel three, psaltry*: The *psaltery* is a type of *zither* of Egyptian origin. From the fourteenth to the sixteenth centuries, *psalteries* were used in the various shapes, with the symmetrical trapezoid being the most common. This panel is thus representative of the kind of instrument which was prevalent during Luca's time. The hands and fingers are especially expressive.

Panel four, lute-type: This is the only panel which has instruments not immediately and clearly identifiable. This panel raises the question of possible unrealistic portrayal, conceivably for increased ornamentation and effect. The head which appears on the end of the fingerboard of one of the instruments at first appears to be somewhat whimsical. This theory is not out of the question, but it is dubious in the light of Luca's clear and simple approach to his art. Evidence points to this instrument as being of the lute family, probably a predecessor of the sixteenth century mandolin. An instrument bearing a striking similarity to that sculptured by Luca, including a carved head on the end of the fingerboard, is found in the *Syntagma musicum* (1615-19) of Michael Praetorius. It is here given the German name, *Mandorgen*, by Praetorius.

Panel five, tabor, pipe and tabor: The pipe is a common and simple instrument of the recorder family. Drums, this type called *tabor*, have been in existence for centuries. What makes their appearance in this work so striking is Luca's sculpture of one of the figures playing the pipe and *tabor* simultaneously. Pipe and *tabor* playing was popular as early as the thirteenth century. This combination of instruments was usually used for accompaniment to the *farandole*, a provincial dance, apparently of ancient origin, which is performed by a chain of people holding hands. There is a suggestion that this dance might be symbolic of Theseus' escape from the Labrinth. Be that as it may, there are two figures dancing in this panel, with two more — one on each side — suggesting a possible circular chain of dancers.

Panel seven, portative, lute: There is nothing unusual about any of these instruments, either in their representatation by Luca, or in their types. The harp is one of the oldest instruments in existence, dating back as far as 3000 B.C. It was widely used on the continent during the time that the Cantoria was sculptured.

The *portative* is a small, portable organ which was also used extensively throughout the Middle Ages and Renaissance. A very interesting point here is the use of a classical motif, much like Donatello, in the leg of the chair on which the player is seated.

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The *lute* in this panel is a very clear representation of the type common during this era. The number and arrangement of strings on the *lute* at this time is between seven and eleven. These are placed in pairs, called courses, with the odd strings being the highest in pitch, and on the bottom of the instrument. It is difficult to ascertain precisely from reproductions how many strings Luca has given the instrument. There appear to be four courses plus one additional, single string on the bottom. If his intention was to have only eight strings, i. e., four courses, this would be an instrument most widely used about 1400.

Panel eight, tambourines, and

Panel nine, cymbals: The tambourine and cymbal pose no special problem, since these same types of instruments were used in ancient times, and are still in use today. It must be said, however, that these instruments are generally associated with festive occasions, often as accompaniment to lively, dance-like processions.

Conclusion

It can be concluded from the above that Luca della Robbia makes use of both modern and ancient prototypes of instruments in a way that, above all, conveys a mood and atmosphere of joy . . . "Praise ye the Lord." He is extremely careful with the replicas, be they depicting the old or the new, with the exception of one enigmatic lute-type in panel four. The careful positioning of the hands is especially noteworthy, adding immensely to the communicative force of the work.

It is also evident that the artist had no particular preference for stringed or wind instruments. At any rate, he assigned no special status to them in the *Cantoria*. Crutwell does suggest a correlation between the trumpets of panel two and the singers and dancers of panel six. Further, she states that the two center reliefs, panels three and four, are classically draped groups, and implications that these stringed instruments are in a position of preference.[20] This writer feels that there is no basis for such conclusions, since, (1) the artist was working within the confines of limited space; (2) his order was determined by scripture itself; (3) the entire subject deals with music — thus, any number of arbitrary relationships between panels could be proposed.

The cost of panels six through nine — i.e., the upper series of four — was slightly more than half the cost of panels two through five, the lower series of four. Nevertheless, the bottom series of four is not to be dismissed as a work of inferior art. The clarity and attention to detail is, at times, exceptional. The leg of the chair in panel seven, the eyes of the cymbal players, the decoration on the tambourine, and particularly the strings of the lute in panel seven, are all examples of this exacting craftsmanship. This aspect of the analysis demonstrates Luca's careful attention to detail, whether or not he is dealing with musical instruments.

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The *Cantoria* of Luca della Robbia, taken as a whole, is a remarkable piece of fifteenth-century sculpture. Specifically, it stands as a marvelous attestation of the use and types of instruments during this period. But, more than this, it is a moving example of the fusion of visual art and music. One is struck by the freedom of motion which Robbia achieved in these figures, and of his virtual attainment of the dimension of sound through his expressive portrayals.

FOOTNOTES

1. Kinsky, George, **History of Music in Pictures** (New York: E. P. Dutton, 1930).
2. Apel, Willi, **Harvard Dictionary of Music** (Cambridge: Harvard University Press, 1944), p. 356.
3. Plato, **The Republic, I** (London: W. Heinemann, 1930), tr. by Paul Shorey, p. 263.
4. Winternitz, Emanuel, "The Curse of Pallas Athena," **Studies in the History of Art Dedicated to William E. Suida** (New York: Phaidon Press, 1959), p. 187.
5. Winternitz, **op. cit.**, p. 186.
6. Strunk, Oliver, **Source Readings in Music History** (New York: Norton, 1950), p. 21.
7. Egan, Patricia, "Poesia and the Fete Champetre," **Art Bulletin**, XLI (1959), pp. 303-13.
8. Sachs, Curt, **The History of Musical Instruments** (New York: Norton 1940), p. 129.
9. Meyer, Kathi, "The Eight Gregorian Modes on the Cluny Capitals," **Art Bulletin**, XXXIV (1952), pp. 75-94.
   Meyer refers extensively to **Die musikalischen Instrumente in den Miniaturen des Mittelaters**, by Edward Buhle, (Leipzig: 1903).
10. Meyer, **op. cit.**, p. 86.
11. Winternitz, Emanuel, "Bagpipes for the Lord," **Bulletin of the Metropolitan Museum of Art**, XVI (1958), p. 297.
12. Haward, Lawrence, **Music in Painting** (London: Pitman, 1948), p. 2.
13. **Ibid.**
14. Crutwell, Maud, **Luca and Andrea della Robbia** (London: Dent, 1902), p. 47.
15. Marquand, Allan, **Luca della Robbia** (Princeton: Princeton University Press, 1914), pp. 5-6.
16. Crutwell, **op. cit.**, p. 40.
17. Marquand, **op. cit.**, p. xxix.
18. Schubring, Paul, **Luca della Robbia** (Bielefeld: Velhagen and Klafing, 1905).
19. Crutwell, **op. cit.**, p. 55.
20. Crutwell, **op. cit.**, p. 53.

SOME NOTES CONCERNING PERFORMANCE OF RENAISSANCE CHORAL MUSIC

Orland Johnson
Washington University

This literary attempt was originally intended to be a small essay in which precisely and succinctly some guidelines concerning the performance of Renaissance music might be drawn. It was to have been a distillation, if you please, of some of the best authorities on the subject. My purpose in this was — and is — twofold: 1) Hopefully more people, especially in high school work will venture into this music because of my remarks, and 2) For those who have already ventured, or for those who intend to do so, then perhaps these few words will offer aid and comfort.

Diversity of Renaissance Music

However, the problems started appearing almost from the very first. Chief among these was the very fact of performance diversity within the Renaissance itself. For instance, a motet or madrigal might be performed a cappella as written, or with instruments — including continuo — or with instruments playing the parts as written while the singers improvised some very elaborate ornamentation to go along with this. Because of this diversity, practically any rules that one might suggest would, out of sheer necessity, have to be quite fundamental.

Thorny though these problems seem to appear, it is and always has been my contention that herein lies not only a solution, but also one of the most fertile fields imaginable in music education. It only requires a brave soul to do some cultivation.

The very fact that this music was performed in such diverse fashion suggests that high school choral and band directors with creative outlooks could present some extremely imaginative programs. For instance, if you have a choral class with thirty-one sopranos and one alto, then you might be interested in some of the sixteenth century music for equal voices — of which there is quite a bit. If one is in a small high school and is lucky enough to have a small but competent choir, then why not attempt a double chorus piece in which a brass choir would do the second chorus part. If the band director has his troubles also, and no complete brass choir is forthcoming, then you might use a mixed group of some sort. (Saxophones are all right if played with no vibrato; otherwise a virbrato will tend to blur the lines.) The musicians of the Renaissance were accustomed to using what they had at hand; it must be borne in mind, however, that their instruments were softer. A few of our modern instruments go a long way.

Musicology and Music Education

We are living today in the era of musicology, and authenticity has become our watchword. This is good as long as we do not become weird cultists in the name of "performance in the authentic Renaissance manner." It is good as long as musicology is the servant of good performance. The day that it is more fashionable to talk about music rather than to perform it is the day that our values should be re-examined. A day of re-examination is just as much in order for those people who in the name of music education give the people "what they want". When this "want" consists of educated sideshows and genteel sex, it is extremely hard to see how one can claim to be a music educator. It has long been another contention of mine that music education and musicology go hand in hand; support of that thesis is one of the main reasons for this article.

Musicology has made available to us more early music than we have previously had at any time. In cooperation with scholarship there are more publishers than ever before bringing out medieval, renaissance and baroque music. This is very gratifying; however, this in itself poses a great many problems.

The first thing to remember is that some "practicle" editions are not always reliable. For instance, if a Palestrina motet, which you desire to perform, was first published in the twenties, then the chances are that it is based upon the old Haberl edition. This was a monumental work in its day, but it does contain quite a few errors. It would be better if you would check it with the more reliable Casimiri edition, or if you can obtain an edition which has been published in the last ten or fifteen years, the chances are that it is correct. This is not to say that all of Haberl is wrong; it is just wise to check. We have learned a great deal about text underlay, accidentals, and notation since that edition first made its appearance.

As a rule one sure sign of bad editing is a score which contains quite a few dynamic markins (e.g. Richard Wagner's edition of the Palestrina Stabat Mater) without a note explaining that they are mere suggestions. Dynamic markings in the vocal music of the sixteenth century are practically non-existent; the same may fairly well be said for instrumental music, although markings are found from time to time.

Task of Editor and Publisher

In all fairness to the publisher it is well to mention that his job is no bowl of roses as may be witnessed by the following:

> Even when all the component parts of a composition have survived intact, the editor's task is far from light . . . in vocal music the words were often either omitted altogether or else set out under the music in a very arbitrary and careless way. In printed music of the sixteenth century both verbal and musical texts were set from movable type, and it was not always practicable to set a syllable exactly under the notes to which it was to be sung . . .
>
> Underlay is not the only problem. Many accidentals were missed out altogether, not through carelessness but because the singing rules of the time would have left the performer in no doubt as to how they should be supplied . . .
>
> . . . The duration of those accidentals that are actually found in the source was governed by a whole complex of interlocking rules which were perfectly familiar to the six-

> teenth century singer but have long since been forgotten. The interpretation of certain conventions fo notation (rests, ligatures, and so on) was not internationally standardized in the sixteenth century. Plainsong intonations and iterpolations were usually omitted since they, too, varied from country to country and even from diocese to diocese. *Instruments could be used more or less at the discretion of the musical director of any particular performance; they might replace the voices or they might double them, or in certain circumstances and at certain times in the year the overriding claims of the liturgy might forbid their use in sacred music altogether.* /italics mine/ But none of these problems is revealed by the study of the musical texts alone.
>
> No tempo marks are found. The time-signatures used were themselves an indication of the proper tempo of the piece, and the living tradition of the time-long-dead would resolve any doubts. There was no accepted standard of pitch, and the choice of clefs for the various parts might at times indicate that the whole work was to be performed at quite a different pitch from that at what it was written down. Dynamic markings of any kind are utterly unknown during the six centuries that separate the plainsong notation of the tenth century from the Venetian music of the 1590s.[1]

Nobody is more aware than I that I have used a great deal of space to urge everyone to perform Renaissance music, and then turned and impressed the reader with what a task it will be to interpret such works. However, let the faint hearted take courage. In the first place, anyone who honestly believes that he is going to authentically reproduce sounds of the Renaissance to which Palestrina might have listened after a hard day at the cathedral is exhibiting a naivete in the farthest extreme. Only with such an organization as the Pro Musica of Noah Greenberg is such an experience approximated — and even in this case one may have legitimate doubts. Every age reinterprets the art of the past within the language of its current culture. We assume a good musical instinct on the part of the reader. If this instinct is allowed to wander within certain broad limits, and the reader is willing to do some reading and listen to authoritative records, then in turn he will come to know and enjoy some of the greatest music the world has ever known. Better yet, especially in the field of the madrigal, his students will come to know that inexpressible joy that comes from having participated in performance of a piece that does not call for virtuosity or forty-nine other voices. Just a small group of people will do quite nicely. In turn the small group may be as virtuose as they care to be. In any event they will understand why people stay up too late at night to sing madrigals or play the quartets of Beethoven.

In the second place there are a few ground rules which will help the unitiated to get started. I will try to give these in some sort of logical order; however, they are not necessarily in order of importance.

Ground Rules

The first thought that comes to mind has to do with acoustics. It must be remembered that most of the composers — actually until the time of Beethoven, but most especially in the Renaissance — stayed in one place for a good bit of their lives. They wrote for a certain choir with its own peculiar makeup of voices, and, most important of all, they wrote works which were to be performed in a certain building or room. The composition of works to be performed by most anyone in anyplace that happens to be handy is a comparatively late development in the history of music. Giovanni Gabrieli's style was dictated by the architecture at St. Mark's Cathedral. I strongly urge high school bands and choirs to try his work, but I also warn the director to have some understanding of the conditions under which Gabrieli worked, and to perform his works in surroundings that approximate those at St. Mark's. This is not hard to do, and the director will have the further assurance that he is not producing the dud of the ages. One thing which might be mentioned concerning Gabrieli is that his instruments were not our modern brass instruments. This will usually work to our advantage today in that one can use more people in the chorus. I particularly recommend the introduction to the G. Schirmer edition of Gabrieli's *Jubliate Deo.*[2]

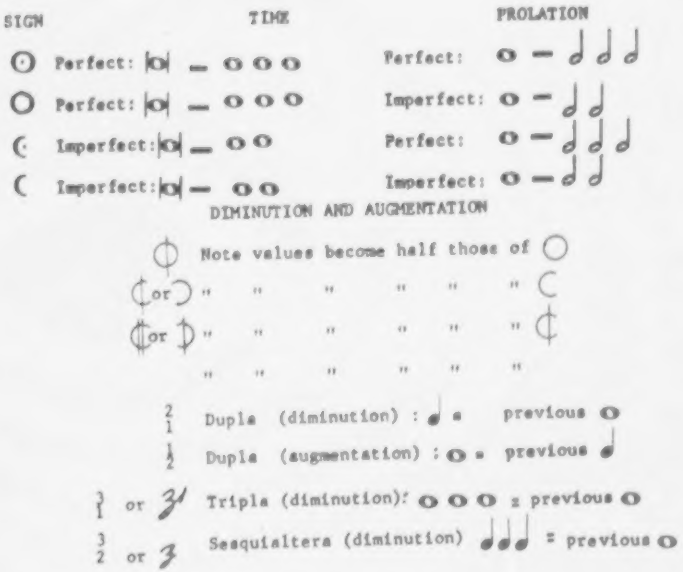
To summarize our first ground rule: Always rehearse any Renaissance piece in the hall in which it is to be performed, in order to ascertain if it is suitable for the acoustical conditions of that particular hall.

The second thought which comes to mind has to do with the tone quality of the voices. The operatic voice as we know it today was not in existence in the sixteenth century — although there is some evidence to indicate that it might then have been developing. However, in my opinion, one accomplishes the best results by insisting upon a full tone with *no* tremolo. I use the word full to distinguish between it and the disembodied "white" tone which one so often finds among English choir boys. The main point to keep in mind is that the lines in the composition must be heard. Renaissance music is to etching as a chorus by Brahms is to a Rouault painting.

The second ground rule then is as follows: the contrapuntal lines are most important in any composition of the sixteenth century, and great care must be taken that these lines not be obscured by voices with a lot of tremolo.

We now approach that most thorny subject: the problem of time signatures and tempo in the sixteenth century. Referring back to our quotation from Thurston Dart, it is obvious that the last word has not been said in this field. However, there are certain practices which seem to be agreed upon more or less universally. From these practices one can usually reason to a satisfactory solution of the exceptional problem. It must always be borne in mind that any one particular piece might have it own particular peculiarities. Be that as it may, we have taken the following table from Robert Doningon's *The Interpretation of Early Music*. It is a composite of the signs f mensuration in use around the sixteenth century; appended thereo is a short, but very useful, discussion as to how they are applied

SIGNS OF MENSURATION


SIGN
TIME
PROLATION
Perfect:
Perfect:
Imperfect:
Imperfect:
Perfect:
Imperfect:
Perfect:
Imperfect:
DIMINUTION AND AUGMENTATION
Note values become half those of
or
or
2/1 Dupla (diminution) : = previous
1/2 Dupla (augmentation) : = previous
3/1 or 3 Tripla (diminution): = previous
3/2 or 3 Sesquialtera (diminution) = previous

. . . . The true function of these signatures was not to indicate time in our modern sense of tempo, but to indicate time in the old sense of mensuration. The only information which they impart directly is the relative time allotted to each note-value in proportion to the others. Any information which they may incidentally impart about time in the absolute is indirect information, and neither exact nor reliable.

The only reason why the signatures can impart event indirect information about the absolute time in which the music proceeds is that for certain stable forms of late Renaissance polyphony a conception seems to have been current of a roughly uniform pulse (tactus) of which the remaining note-values were either multiples or subdivisions. It will be appreciated that this was not a means of dictating tempo, which would be a musical absurdity, but of teaching it, and that it would not have been practicable if it had not been kept quite flexible in its actual application.[3]

A few notes on the above table would not be amiss at this point.

1) For those readers who are not familiar with scholarly editions, simply reduce the values by one: i.e. breve becomes whole, whole becomes half, etc. Thus you arrive at our common usage today. 2) We know from sixteenth century treatises that the *tactus* in alla breve was equal to a half note at M.M. 60. 3) The signs C and C frequently meant the same thing. If you have a signature of C and the half note at 60 is too fast (in modern notation), then try the quarter at 60. 4) French music as a rule was faster than Italian, so the tactus will vary as high as 80. Be it noted also that some Italian secular music will work better at this faster tempo.

A summary of the third ground rule is: In any piece of sixteenth century music the tempo is governed by a pulse or *tactus* which was understood by all sixteenth century musicians. This pulse in our modern four-four would indicate that the half note moves at M.M. 60. Any time signatures or tempo changes would always be made in proportion to that pulse.

The fourth item to be considered is that of rhythm. Although bar lines did exist in sixteenth century music, it did so primarily in tablatures and served the practical purpose of keeping the performer from getting lost in the maze of numbers. This is a prelude to saying that sixteenth century music will not sound at all, if you allow the students to accent as we do in our modern music because of the bar line.

To illustrate the above point, I have reproduced the composition of William Byrd, *I Thought That Love Had Been A Boy*, first as it appears in the complete works; then I have taken each part, and written it out as Byrd would have heard it.

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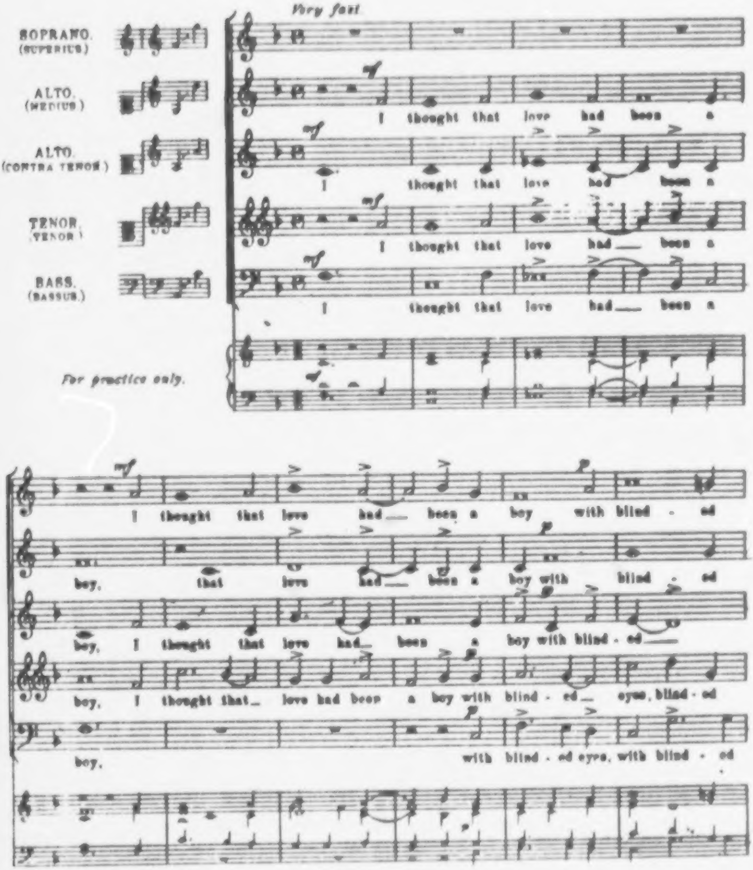
Nº 32. I THOUGHT THAT LOVE HAD BEEN A BOY.


Very fast
SOPRANO. (SUPERIUS)
ALTO. (MEDIUS)
ALTO. (CONTRA TENOR)
TENOR. (TENOR)
BASS. (BASSUS)
mf
I thought that love had been a
I thought that love had been a
I thought that love had — been a
I thought that love had — been a
For practice only.
I thought that love had — been a boy with blind - ed
boy, that love had — been a boy with blind - ed
boy, I thought that love had — been a boy with blind - ed —
boy, I thought that — love had been a boy with blind - ed — eyes, blind - ed
boy, with blind - ed eyes, with blind - ed

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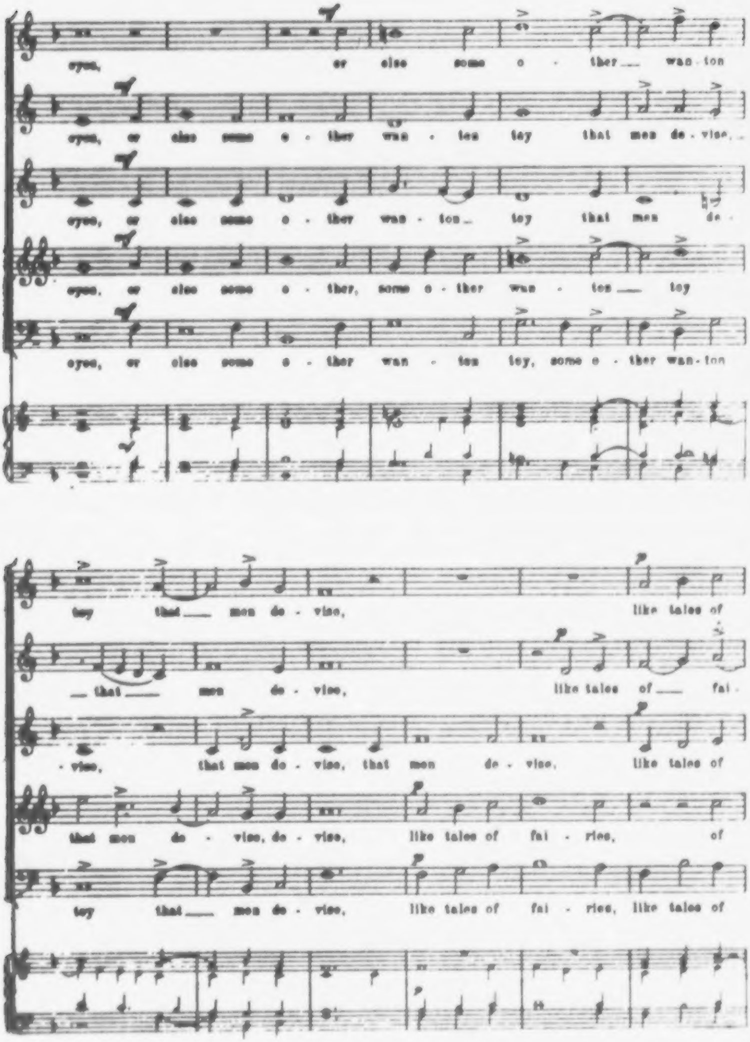
eyes, or else some o - ther___ wan - ton
eyes, or else some o - ther wan - ton toy that men de - vise,_
eyes, or else some o - ther wan - ton_ toy that men de -
eyes, or else some o - ther, some o - ther wan - ton___ toy
eyes, or else some o - ther wan - ton toy, some o - ther wan - ton
toy that___ men de - vise, like tales of
___ that___ men de - vise, like tales of___ fai -
- vise, that men de - vise, that men de - vise, like tales of
that men de - vise, de - vise, like tales of fai - ries, of
toy that___ men de - vise, like tales of fai - ries, like tales of

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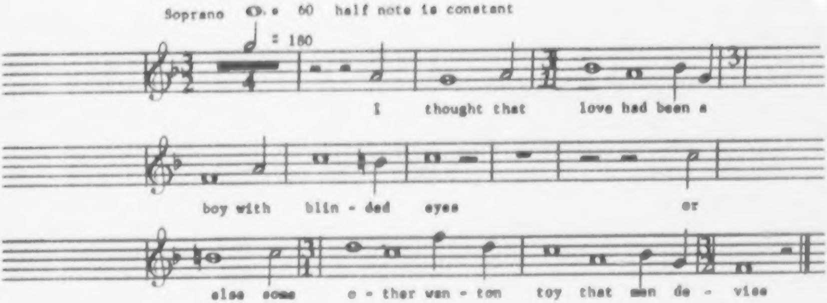
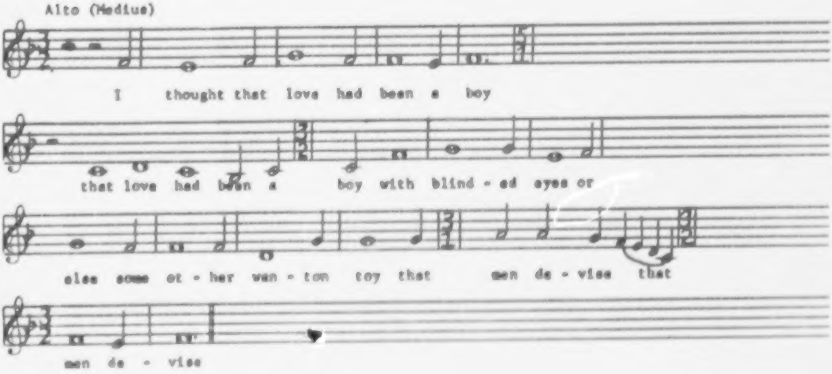
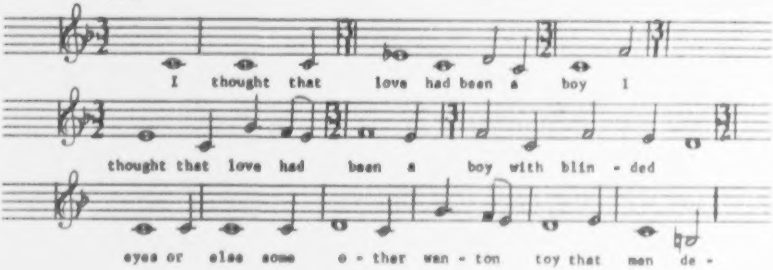
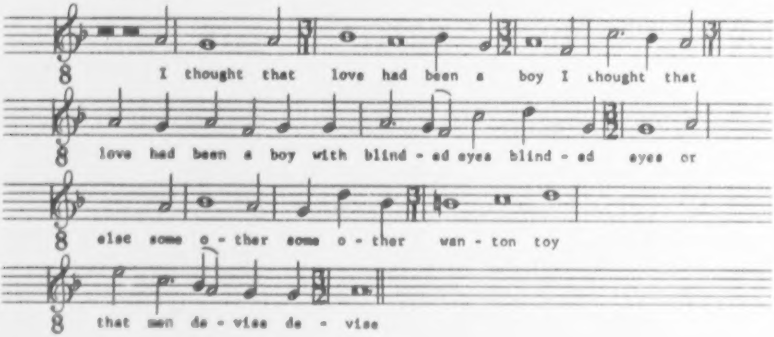

Soprano = 60 half note is constant
= 180
I thought that love had been a
boy with blin - ded eyes or
else some o - ther wan - ton toy that men de - vise


Alto (Medius)
I thought that love had been a boy
that love had been a boy with blind - ed eyes or
else some ot - her wan - ton toy that men de - vise that
men de - vise

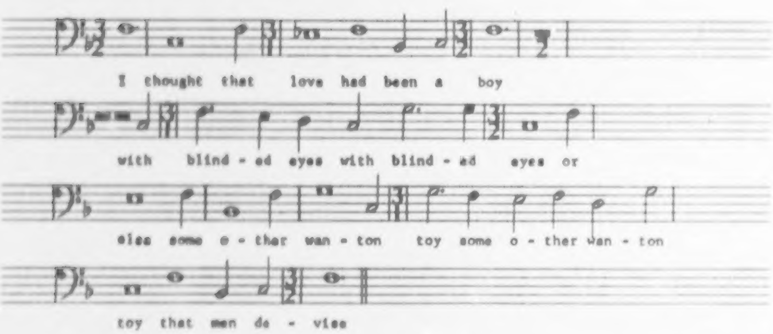
Alto


I thought that love had been a boy I
thought that love had been a boy with blin - ded
eyes or else some o - ther wan - ton toy that men de -

Tenor


I thought that love had been a boy I thought that
love had been a boy with blind - ed eyes blind - ed eyes or
else some o - ther some o - ther wan - ton toy
that men de - vise de - vise

Bass


I thought that love had been a boy
with blind - ed eyes with blind - ed eyes or
else some o - ther wan - ton toy some o - ther wan - ton
toy that men de - vise

As one can see from the foregoing, the score in our modern notation does not show the entire rhythmic picture at all. It is because of these problems that an understanding of the tactus is most important. The tactus must remain constant; this gives the tempo. Any divisions or multiplications of time values are in relation to this. ANY ACCENTS OF WORDS, ETC. ARE GOVERNED BY THE PRONUNCIATION OF THE WORDS IN RELATION TO THE TIME VALUES OF THE NOTES USED.

A summary of the fourth ground rule would read thus: Each part is completely independent from the other as regards rhythm and accent; furthermore, the barlines in our modern score have no validity whatsoever except as a means of reference in rehearsal.

The fifth ground rule is: Know the essential differences of the national styles. One can get this from any decent music history book.

The sixth ground rule is: Read some good books on the subject. Check the periodicals from time to time. A list of good books and articles (by no means complete) is included at the end of this article.

The last thought that comes to mind is that madrigals took the place of television, radio, etc. in the sixteenth century. The reason that such things lasted as long as they did is that the people had fun doing these things. They had to or a lot of printers would have gone out of business. So the seventh and final ground rule is: HAVE FUN.

NOTES

1. Thurston Dart, **The Interpretation of Music**, Harper Colophon Books, 1963, pp. 136-138.
2. G. Wallace Woodworth, ed. **Jubilate Deo**, G. Gabrieli, G. Schirmer Publishers, Ed. No. 2070.
3. Robert Donington, **The Interpretation of Early Music**, Faber & Faber, London, 1963, p. 339.

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2. Dart, Thurston. **The Interpretation of Music**, Harper, N.Y., 1963.
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NOTE: All of the above have bibliographies within them; however, I particularly recommend the Donington for further bibliography, also the Woodworth introduction.

HAYDN, MUSIC, AND LITERATURE

William Prante
Kirkwood Senior High School

William Prante is a junior at Kirkwood Senior high school, Kirkwood, Missouri. His English composition teacher is Mrs. I. B. Williams and his music supervisor is Mr. Burton Isaac. The paper is included for its own intrinsic interest and as another example of the quality of work which can be done in academic music by interested high school students with proper faculty leadership.

* * * *

For many years writers and composers alike have concerned themselves with the problem of defining the proper relationship between good music and good literature. Novels, operas, poems, and even symphonies have been written in the hope of maintaining a subtle balance between the two mediums. A conclusive result, however, has been difficult to obtain. Either the literature is to "high" for the music, or the music itself overshadows the text.

Many examples may be cited. The great individualism and melancholy displayed by Shakespeare's Hamlet could not begn to be represented by Tschaikovsky's famous fantasy-overture. Likewise, Tolstoy, in his novel "The Kreutzer Sonata," finds himself unable to understand fully the total make-up of Beethoven's music. Nevertheless, we are not interested here in placing musical allusions into poetry or prose, nor are we concerned with describing a great work of literature through music. Rather, the problem is specifically one of actually joining together the two arts of language and sound.

Joseph Haydn, perhaps, came closest to this ideal when he wrote his famous oratorio "The Creation." The thrilling music along with the simple, yet moving narrative gives the listener a real experience of enjoyment. Archangels recite the Scripture! . . . and the Chorus tells of the glory of God. A man thinks about his dear Lord; his music "leaps for joy." And God says, "Let there be light," and there is light. (Such are the moments in Haydn.)

The "Scripture" is taken basically from Books VII and VIII of John Milton's great epic poem "Paradise Lost." Already, many will argue, as a result, that Haydn does not include the whole poem in his work; that because he *is to limited* to these two books, Haydn does not actually succeed in "marrying" his music to this epic. This argument is supported by the fact that most of the theology presented by Milton is not even presented in Haydn. Indeed, the specific Miltonian concepts of God, Satan, and Man are scarcely represented, or even mentioned in Haydn's "Creation." This is particularly arresting when we realize the grave truth of C. S. Lewis' statement: "Milton's thought, when purged of its theology, does not exist."[1] And what is "Milton's thought" but his poetry? Thus, we cannot but help to reach the conclusion that Haydn, too, has failed in his grand mission to combine the arts.

But first, let us make a closer analysis of the facts. The "Creation" is concerned only with one aspect of the poem (" . . hows the heavens and earth rose out of Chaos" —I: 9-10). The "Man's first disobedience" is simply not relevant to the "perfect" nature of the Creation story. In fact, the very concepts of Milton's theology exist only *because* of the Creation. Notice that the greater parts of Chapters VII and VII do not even concern themselves with either God, Man, or Satan. The main emphasis, to be sure, is not on the "paradise lost," but rather on the "paradise." This same argument, of course, applies to Haydn's oratorio.

Haydn's genius, however, even extends further. Rather than establishing the concrete facts of "Chaos" through an aria, chorus, or recitative, Haydn decided to present only a "Representation of Chaos" through the subtle abstractions of music. This overture is very interesting from the standpoint of Haydn's originality. The unpredictability of the chaotic nebula is cleverly illustrated by Hadyn's "chaotic" choice if keys and dissonances, and the tone-colouring is quite effective in that it implies the translucent quality of a total state of nothingness. As the "Representation" subsides, the first statement is announced ("In the beginning God created . . . "). The "chaotic" accompaniment reappears as the "Spirit of God moves across the waters," and the effect is heightened as the first tangible evidence of creation is marked by the first evidence of a confirmed key — C major. ("Let there be Light.")

Some critics contend, however, that even though Milton's "thought" may be in evidence somewhat, the whole idea of "spirit" is lacking. In other words, if a successful union is ever to emerge between two artists, their respective attitudes should complement each other, not contradict. The conclusion of this argument could only lead to the fact that a 19th century musician could not possibly understand a 17th century poet. Indeed, the simple, happy, child-like faith of Haydn ("At the thought of God, my heart leaps for joy and I cannot help my music doing the same."[2]) could not possibly be compared to the "blind and furious Milton fighting and slashing the air."[3]

Nevertheless, the two classics are universal, and they do both represent the same, universal emotions of mankind. In dealing with universality, it is not so important to understand as it is to feel. Thus, Haydn and Milton do seem to "compare;" they do seem to understand. For just as Adam and Eve rejoice in Raphael's account of the Creation as described in "Paradise Lost," so the listener rejoices in Haydn's account. Professor D. J. Grout feels that "no music more perfectly captures the mood of pure delight in nature" than the "Creation."[4] From the "foaming billows" of the stormy seas to the clear brooks "murmuring sweetly," Haydn sets his faith into a simple and refreshing love for nature.

The delightfully charming terzetto "How many are thy works" is another good illustration of this. The beauty and the sublimity of this little gem describes so well (beyond words!) the miracle of creation. There is no great surprise in the glorious praise to God from the chorus: "The Lord is great in his might and ever shall his glory remain." The emotional reaction is only natural.

Nevertheless, even though the emotions are present, we should, perhaps, question the validity of this "art." We realize that just through the music alone, the oratorio is quite beautiful and distinctive. The artistic advantages of the literature, however, have not as yet been proven. Quite often, for example, Bach's music far surpasses his text. In fact, the only reason the verses themselves seem as profound and powerful as they do is simply because of Bach's great music. The words themselves often have no literary merit.

This same argument could so easily apply to Haydn if only because of Baron van Swieten's third-rate German translation of "Paradise Lost." Through this translation, Swieten completely stripped the poem of the traditional classic-style in which Milton had written.[5] Because of this, many complain that the existing literary parallels and allusions found in "Paradise Lost" no longer remain in Haydn's music.

Fortunately, this is not altogether true. Even though the Virgilian or Homeric images of Milton do not permeate the Swieten translation, there still remain references to many other works. Among such examples include the Book of Genesis, the Psalms of David, and of course, the poetry of Milton.

To quote from the great Psalmist:

> The heavens declare the glory of God;
> and the firmament sheweth his handiwork.
> Day unto day uttereth speech;
> Night unto night sheweth knowledge.
> There is no speech nor language,
> where their voice is not heard.
>
> —Psalm xix: 1-3.

However, one point yet remains. "At the heart of every true epic," states Davis P. Harding, "is the attempt to express a way of life, and an attitude toward it, which will enable man to live out in his days 'upon the rack of this tough world.'"[6]

The "perfect" harmony of the "Creation" seems only to be disrupted once by Uriel's fateful warning:

> O happy couple, and happy eternally, if
> vain illusion does not mislead you to
> desire more than you already have.

Unhappily, this lone recitative is the only representation found in the "Creation" of the tragic element which Milton used so greatly in his "Paradise Lost." As a result, the only effects Haydn achieves here are simply those inane realizations that not only is Uriel's warning correct, but that we no longer exist in a perfect world.

Despite these criticisms, however, Haydn does express "an attitude and a way of life." For example, the love and happiness of Adam and Eve is beautifully outlined in their elegant duets in Part Three. Even in the aria "In native worth," the very fact that man (the very "soul, the breath, and image of God") should be described in such a subdued fashion, pointedly shows the lovely relationships of man and woman to their God.

Surely, in spite of the tragic loss of both Milton's original style and story, the "heart of the epic" still exists; a marriage has been performed. For even though the faults may be many and the balance unequal at times, a partnership between music and literature has been reached, a work of art completed.

Footnotes

1. C. S. Lewis, **A Preface to Paradise Lost.** (New York: Oxford University Press, 1961), p. 65.
2. Joseph Machlis, **The Enjoyment of Music.** (New York: W. W. Norton and Co., Inc., 1957), p. 221.
3. Introduction by Edward LeConte, **Paradise Lost.** Milton (New York: Mentor Books, 1961), p. 33.
4. Donald J. Grout, **A History of Western Music.** (New York: W. W. Norton and Co., Inc., 1960), p. 453.
5. Notes by Robert Cushman. Vox recording of **The Creation** by Haydn, (New York: Vox Productions, Inc., 1959).
6. David P. Harding, **The Club of Hercules.** (University of Illinois Press, 1962), p. 24.

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AN INVESTIGATION OF THE EFFECT OF THREE CONTRASTING TYPES OF MUSIC ON THE ELECRIC POTENTIAL GENERATED BY THE HUMAN BRAIN

Dr. F. Bion McCurry
Southwest Missouri State College

ABSTRACT

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Introduction

Music has been associated intimately with the activities of man for thousands of years. Music has played a role in mythology, folklore, magic, religion, work, love-making, entertainment, war and medicine. Some musical selections seem to have a relaxing effect upon the listener, while others seem to have an exhilarating effect. Some selections tend to make the listener appear sad, while others are inclined to induce a happy or joyful state of mind.

A great amount of literature on music and its effect upon the human body is in the form of empirical observations that give only the bright or positive side of music's effect.

Numerous attempts have been made to investigate the psychological effects of music. They have been made in terms of moods and ideas induced by listening to music. The method most frequently used involves the checking of nouns or adjectives which, after hearing a particular musical selection, best describes the listener's feeling. A similar type of study is one in which the subjects spontaneous reactions to the music are recorded through the interview technique immediately after the music has been heard.

Another, more objective type of study, has been carried out by certain investigators to ascertain music's effect upon respiration, heartbeat, blood pressure, and other physiological changes.

Statement of the Problem

Music has often been defined as the "universal language." Literally speaking, this could be construed to mean that certain types of music would have the same communicative properties to all peoples of all lands and nationalities. Under this hypothesis, a musical selection capable of producing a certain mood or state of mind for one listener would do so for all listeners.

It may also be assumed that under this hypothesis, more exacting influences than that of mood might be evident when particular selections are heard. These influences would include some objective measurements as rate of heart pulsations, blood pressure, breathing rate, psycho-galvanic reflex, and electric impulses produced by the brain.

The purpose of this study was to further investigate one of the physiological effects of music, by ascertaining if there were any changes in the electric impulses produced by the human brain, as measured by the electro-encephalograph, when certain categorized musical selections were introduced to the subject. Stated as a null hypothesis: at the 5 per cent level, there is no significant difference between the frequency of the electric potential produced by the human brain when no stimulant is applied to the subject, and the frequency of the electric potential produced by the human brain when certain categorized selections of music are applied to the subject as a stimulant.

In order to accomplish this purpose it was necessary to seek answers to the following questions:

1. To what extent does the frequency of the brain wave pattern vary from normal, when certain selections of categorized music are introduced to the subject?
2. Does the introduction of categorized music have a similar effect upon the frequency of the human brain wave pattern in different subjects?
3. Is there a significant sex difference in the frequency variation of the brain wave pattern when music is used as a stimulant?
4. Does the intercomparison of the brain wave frequencies recorded by the subjects for the three categorized musical selections show a significant difference?

Need for the Study

A musical composition, like a poem, is capable of producing or expressing a definite emotional state of mood. This mood may be said to constitute its meaning.

One of the first recorded uses of music to affect the emotions of man, is found in the first book of Samuel:

> And it came to pass, when the evil spirit was upon Saul, that David took an harp and played with his hand; so Saul was refreshed, and was well, and the evil spirit departed from him.[1]

It has been observed that a good band can furnish a very definite pickup for weary, marching troops. Music has been generally recognized by our present military service. Troops are still awakened by the bugle, but it some instances the bugle's call is followed immediately by some lively recorded selections played by a military band. Troops are encouraged to sing as a means of letting off excess emotional energy; and, at many military installations, musical instruments are provided for the men to play.

Music has been used with favorable effects in factories and work rooms.[2] It has also been used effectively in hospitals and dentists' offices.[3, 4, 5, 6] As a background for a theatrical play, music helps enhance the mood and emotional effect of the play.

Although most people would agree that certain musical compositions seem to have the power to produce certain moods and emotions while being heard, we have only their opinions about the type of mood, the intensity of the emotions and the duration of both. It is often hard to describe in words the reaction the listener may have while listening to a musical composition. It becomes a question of semantics.

Quite a number of studies, concerning the effect of music, have been completed since the early part of this century. In one type of psychological study, the subjects were given lists of words, indicating various mood values, and asked to check the ones that seem best suited to convey the mood of the music to which they were listening. Others have been asked to indicate the mood of a selection by a descriptive sentence or paragraph. This involves an opion on the part of the listener, and also semantics. This type of study is valuable, for its findings help accumulate information about the psychological effects of music, its social and aesthetic attributes.

Another, more objective type of study, has been carried out by researchers to determine the physiological effect of music on certain organs and functions of the body. In these studies, the rate of heartbeat, breathing rate, galvanic skin response, blood pressure, metabolism, and muscular energy were measured while music was being used as a stimulant.

With all due respect to the scientifically produced psychological studies and other studies that may have been empirically produced, the writer felt that there was a great need for more of the objective type of research, which would possibly substantiate or refute previous observations concerning the capability of music to affect mankind.

Limitations of the Study

This study was limited as follows:

1. This study was limited to children in the sixth grade.
2. This study was limited to those children who were regularly enrolled in Southwest Missouri State College labobatory school.
3. The musical selections used in this study were limited to three.
4. The number of subjects in this study were limited to thirty.
5. This study was limited by the differences in the time of day that each subject was tested.
6. This study was limited by the individual physical and mental state of each subject at the time of testing.
7. This study was limited due to the fact that the researcher was not qualified to read the electroencephalograms, and of necessity relied on the opinion of a qualified electroencephalograph technician.
8. Although the reproducing instrument for the musical selections was constant, the recorded music used was constant, the electroencephalograph machine was constant, and the method of presenting the musical selections was constant, there was no way in which all factors other than these could be held constant. Therefore, the study could not be termed a completely controlled experiment.

Definition of Terms Used

Electroencephalograph is a vacuum tube amplifying device with oscillographic writing pens, for recording changes in the electrical potential of the brain.

Electroencephalogram is a visual recording of the electric potential of the brain, as measured by the electroencephalograph.

Electric potential is that minute voltage generated in the brain.

Brain wave pattern is a term used to indicate the tracings of the electric potential as they appear on the electroencephalogram.

Normal brain wave pattern, for the purpose of this study, is that pattern of the subject's electric potential as recorded on the electroencephalogram when no apparent stimulant is being used.

Stimulant is anything that promotes the activity of some physiological process. For the purpose of this study, selections of instrumental music are used as stimulants.

Response is the way in which a living body, or one of its organs or parts, reacts to a stimulus.

Assumptions

The following assumptions were made at the inchoation of this study:

1. It is assumed that the electroencephalograph technician was thoroughly qualified to accurately record and determine the measurements of frequency of the electric potential of the brain.
2. It is assumed that the selected musical item schedule as developed in Moon's investigation of the scope of mood responses of intermediate grade pupils in a valid schedule.[7]
3. It is assumed that the eight categories of moods as developed by Hevner in her Adult Mood Reaction Study are valid categories.[8]
4. It is assumed that this study is not concerned with the assessment and alleviation of the problems of persons who are mentally distressed or disturbed, and should not be construed to be in any way connected to the problems or activities of clinical physchology.
5. It is assumed that this study in no way attempts to interpret the objective findings in terms of mood or emotion, nor does it profess to imply any connection whatsoever between the findings and mood or emotion.
6. It is assumed that this study is not concerned with any psychological effects of music when used as a stimulant.
7. It is assumed that this study does not attempt to interpret the electroencephalograms, but only to determine any numerical differences in brain wave frequency.

Related Studies

No real effort was made to determine the effect of music upon the human body and mind until the arrival of the experimental method of investigation in the eighteenth and nineteenth centuries.

Since that time there have been many reports on music and its effect upon humans, but a good proportion of these reports have been in the form of empirical observations and individual case studies. Some of the investigations were carried out by the use of the scientific method, while others were merely opinions which seemed to have resulted from observations alone.

There does seem to be a definite indication, from the literature surveyed, that music has some psychological effect on certain organs and functions of the human body. Studies have been made, the results of which indicate that music may: (1) produce variable effects on blood circulation, blood pressure, and pulse; (2) influence the electrical conductivity of the skin as manifested by galvanic skin response; (3) increase or decrease muscle tension; (4) affect the rate of breathing; (5) be influential as an attraction or distraction factor; and (6) have some effect on the pupillary and pilomotor reflexes, the pain perception threshold, the breathing rate, the painting skills, and the chemical action of the body.

None of the literature reviewed made use of the electroencephalograph to record the possible effect of music on the electric potential of the human brain in normal subjects.

SOURCES OF DATA AND PROCEDURES USED

The Development of Electroencephalography

The application of electroencephalography has made tremendous strides during the last twenty years. Almost all the larger hospitals in the United States now have facilities for electroencephalography.

In 1875[9] Canton reported the first observation on electric potentials of the brain. Using a sensitive galvanometer, he recorded currents from the exposed brains of monkeys and rabbits, by connecting electrodes to the brain.

The first descriptive record of currents originating in the brain, but recorded without contact of the electrodes directly with the brain, was made in 1890 by Von Marxow.[10]

One of the latest instruments of precision, the electroencephalograph, was first described in 1924 by Berger[11] as the result of his work, which was started in 1902.

Electroencephalography is the science of recording the electrical output of the several sections or divisions of the brain. At all time, whether asleep or awake, the human brain produces a minute but measurable electrical discharge called electric potential. This potential does not enter into the brain from any outside source, but is the product of the energy expenditure within the brain.

With sensitive instruments, the electric potentials may be amplified sufficiently to drive an oscilloscope or a graphic ink-writing mechanism. The electroencephalograph is such an instrument. Electrodes, which are pickup units made from electrical conducting material, are fastened on the outside of the head by an adhesive, or through the skin of the head by a small needle. These electrodes are placed on the head over the section of the brain from which the electric potentials are to be measured.

Wires conduct the impulses received by the electrodes to an electronic amplifier which amplifies the minute electrical pulsations many thousands of times. These amplified pulsations activate the ink-writing pens. Under the pens a calibrated paper chart is made to move at regulated speed. Thus the combination of the action of the pens on the moving paper produces a line graph representing the change in strength and intensity of the electrical activity in the brain.

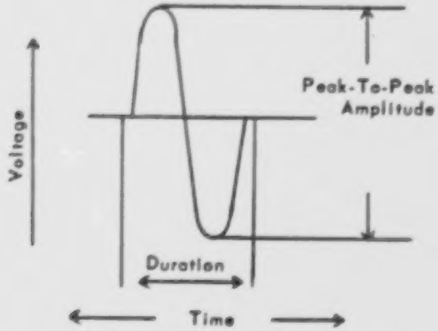
The electroencephalogram is the written record of tracing made on the electroencephalograph. It is a series of waves that represent the brain's electric potential or activity. These waves vary in number, duration, and voltage.

The term frequency, as used in electroencephalography, denotes the number of times a wave is repeated in a given unit of time. In electroencephalography, the unit of time is one second.

Amplitude represents the maximum displacement from a neutral reference line of a given oscillation. It is difficult to measure amplitude of the waves appearing on the electroencephalogram since a steady neutral mid-point is difficult to determine, because of the base-line swinging of the drawing pens.

A complete description of a wave is made with the determination of duration or frequency, amplitude and contour. Figure 1 shows these measurements.

FIGURE 1. The *Sine Wave*



The Pilot Study

To determine if there was reason to believe that information could be gathered and used concerning the problem of the investigation, a pilot study was instigated several months before the data for the main experiment were collected. It was believed that through the employment of a pilot study, certain anticipated complications, as well as unanticipated ones, could be surveyed and remedies employed, so that the collection of data for the main study might be expedited.

After completing the pilot investigation, it was the technician's opinion that, although slight, there was an apparent difference in both frequency and amplitude of the sine waves between the segments of silence and the segments of music recorded on the tape It was also his considered opinion, that because of the apparent difficulty of obtaining an accurate measurement of the amplitude of the sine wave, the main study should be concerned only with the measurement of frequency.

The Main Investigation

A letter was sent to the parents of each subject to be used in the experiment explaining the proposed study and asking permission to use their child as one of the subjects. Enclosed in the letter was a statement from a leading surgeon regarding the lack of possibilities of any harmful effects through the use of the electroencephalograph machine, a permission slip for the parents to sign and return, along with a stamped envelope addressed to the researcher.

The subjects were contacted personally by the researcher while they were in their daily music class. A day was chosen for the explanation of the proposed study to the students, so that it coincided with the day the parents received the letter asking for their permission for the student to participate. It was gratifying to learn that all members of the class were enthusiastically in favor of participating. Schedule times were made with the participating students by allowing them to form themselves into groups of three or four, and choosing the evening that would be most convenient for them.

To help allay any fears or anxieties on the part of the subject, the nurse, who would be in attendance during the entire time the electroencephalogram on each subject was being made, was asked to come to the school to talk with the students. At this meeting the nurse demonstrated the placing and removing of the electrodes. The nurse's personality enthralled the students. They were anxious to start the experiment.

The Sample

The sample for the main study was composed of the members of the sixth grade class of Southwest Missouri State College laboratory school in Springfield, Misouri.

The sample included fifteen boys and fifteen girls, ranging in age from eleven years, one month, to twelve years, two months. The intelligence quotients of the class, as determined by the 1957 short form of the California Test of Mental Maturity, ranged from eighty-seven to one hundred forty-four. The median intelligence quotient was one hundred eighteen. The socio-economic status of the parents of the students ranged from low through high, with the average for the class falling in the upper middle category.

The Recording Tape

The tape used in the investigation was produced in the professional recording studio of Radio Ozark Enterprises and Radio

Station KWTO in Springfield, Missouri, by a recording engineer for that company.

Two minute portions of each selection were recorded on the tape in the following order:

1. Silence.
2. Bach, J. S., "Air for the G-String," from "Suite in D Major," recorded by Nathan Milstein, Violin, with Leon Pommers, Piano, a Capitol recording #P-8396.
3. Liadoff, "The Music Box," recorded by the RCA Victor Orchestra under the direction of Ardon Cornwell, RCA Victor Recording #WE81, 41-6126.
4. DeLisle, "La Marseillaise," recorded by the Band of the Grenadier Guards under the direction of Major F. J. Harris, London Recording #P-8396.

The opening statement used in the pilot study was condensed to read as follows:

> This is Mr. McCurry. I would like to ask you to lie still and relaxed, while you listen to three different selections of recorded music. Before each piece of music is played, you will hear a soft tone like this: (a soft bell tone was sounded here).
>
> Between each selection of music, you will hear no sound for just a short time. Just before the first tone, there will be two minutes of no sound. Now lie quietly, and within two minutes you will hear the first tone.

Similarly, the closing statement was made as follows:

> This is Mr. McCurry again. The music is finished. Lie still, and I will come in to take the earphones from your ears. Thank you very much for your help.

The Reproducing Machine

The machine used to play the completed tape recording for the subject was a Wollensak model T-1500 high fidelity portable recorder, having a frequency response of from forty to fiften cycles per second, plus or minus three decibels at seven and one-half inches per second. The instrument's signal to noise ratio was forty-eight decibels, wow and flutter less than 3 per cent, and distortion less than 8 per cent.

A junction box with one input connection and three output jack receptacles was devised so that three sets of earphones could be used simultaneously. One set was used by the subject, one by the researcher, and one by the technician. All three sets of earphones were matched and were of high impedance type. The output gain of the tape recorder was set on the second position of the ten position scale. This setting was used for all subjects.

The Electroencephalograph

The electroencephalograph used was located at St. John's Hospital in Springfield, Missouri. A room, pleasantly appointed, adjacent to the equipment room, was available as a waiting room for the subjects.

Four connecting rooms were used for the examination. The first of the three was used as a waiting room. Another was equipped with lavatory, cabinets, chairs, and the necessary items used in preparing the subject for the actual making of the electroencephalogram record. The other two rooms housed the electroencephalograph instrument and an examination cot, respectively, and were separated by heavy mesh wire screen so that the subject might be observed while the record was being taken.

The room in which the examining cot was located was an electrically shielded room, so designed that the room was a complete enclosure of conducting material connected at only one point to the ground of the recording instrument.

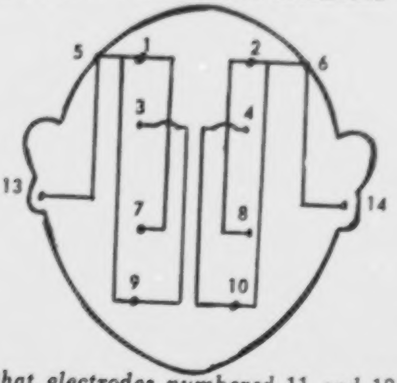
The electroencephalograph machine used in the study was a Grass, model number six, with capabilities of measurement of up to eight channels.

For the collection of data for this study, a calibration of fifty microvolts was used. A graphic record of the calibration was made at the beginning and at the end of each subject's electroencephalogram. For each subject, the programming of the machine was the same.

Since it was evident that the subdermal electrodes could cause an added amount of anxiety on the part of the sixth grade subjects, the surface electrode type was used in the collection of data. Before the record was taken, the resistance between electrodes was measured to determine whether or not a good contact was made.

There are many possible systems of electrode placements, all of which have their advantages and disadvantages. Electrode placement in this study was left to the decision of the electroencephalographer in charge of the laboratory after an explanation of the study was made to him. Figure 2 shows the placement of electrodes.

FIGURE 2. Placement of Electrodes



It will be noted that electrodes numbered 11 *and* 12 *were not used by the electroencephalograph technician for technical reasons.*

Data for this study were collected by using the bipolar method of connecting the electrodes to the amplifiers.

A qualified electroencephalograph technician was in attendance at all times when the electroencephalograph equipment was being used. Since there was a possibility that individual subjects might react in different ways to the experimental process, a registered nurse was employed to be in attendance for any emergency that might arise.

The Examining Procedure

Data for the study were collected generally in the evenings between the hours of six-thirty and nine-thirty.

Upon entering the examining rooms, the subjects and their parents were invited to tour the four rooms being used, noting the arrangement of equipment. They were given a short resume of the procedure for the evening. The technician and nurse were introduced, and their part in the experiment explained.

The subject was then taken to the preparation room where the electrodes were placed on his head by the nurse.

The subject was then directed to the examining room in which the hospital bed was located, and asked to lie down and be comfortable. It was gratifying to know that all thirty of the subjects first asked if they were not expected to remove their shoes. They seemed pleased and a little bit devilish when they were told that they did not have to remove them. This unanticipated bit of joviality seemed to attenuate any anxiety the subjects might have been experiencing.

While the technician connected the color-coded wires of the electrods to the cable leading to the electroencephalograph instrument, the researcher gave the subject final instructions.

During the actual taking of the subject's record, the technician monitored the record tape through his set of earphones, and marked on the electroencephalogram the exact second of the beginning and ending of each section of silence and of music.

During the time the record of one subject was being taken by the technician, the nurse had prepared the next subject. The process was then repeated in its entirety with the next subject.

The Frequency Measurement

To interpret the information collected by the used of the electroencephalograph, each electroencephalogram had to be changed from line graphs representing the electric potential of eight sections of the brain, to numerical values. This was done by measuring the frequency per second and recording that number on the electroencephalogram. To facilitate the measurement of the frequency per second, a tool called the EEG ruler was used.

A decision was made to measure those seconds in the center of each section of each electroencephalogram, so that any variation in brain wave which might have been caused by the starting and stopping of the sound of music would be eliminated. Thus, a portion of the section with a more stable wave pattern would be designated.

The center second of each section of all electroencephalograms was determined and marked. The thirtieth second before the midpoint, and the thirtieth second after the midpoint was designated as the starting and ending points respectively for the total area of the record to be measured.

The frequency per second was measured in alternate seconds within the boundaries of the area designated at the center of the section. This procedure was followed for each line, in every section of all electroencephalograms.

Figure 3 shows a sample from a page of a section of an electroencephalogram.

The total frequency per second per line for each section of each electroencephalogram was recorded on the subject's information chart, and a grand total determined for each of the four sections. This grand total per section was used as the raw data to be treated statistically.

Another chart was made indicating the total frequency per second for each section of all the male and female subjects' electroencephalograms.

Statistical Treatment

The significance of the difference of the means was the statistic used to determine whether or not the mean difference between those sections in which the experimental factor of music was presented, and the control section in which no apparent stimulant was present was a real difference, or if it was merely a chance variation.

At the inception of this study, a decision was made to reject or accept the null hypothesis at the 5 per cent level of confidence.

The following formula for determining the standard error of difference between means was used in the first treatment of the data collected in this study:

$$SD_{\bar{x}} = \sqrt{S_{\bar{x}}^2 + S_{\bar{y}}^2 - 2(r)(S_{\bar{x}})(S_{\bar{y}})}$$

in which SDx is the standard error of difference between means, sx is the standard error of the mean, and r the Pearson's product-moment correlation coefficient.

In order to use the above formula, the standard deviation for each distribution was computed by using the formula:

$$S_x = \sqrt{\frac{\Sigma x^2}{N-1}}$$

in which Σx^2 is the sum of the deviations squared.

Then the standard error of each mean was computed with the following formula:

$$S_{\bar{x}} = \frac{S_x}{\sqrt{N}}$$

and the Pearson r by the formula:

$$R = \frac{\Sigma xy}{\sqrt{(\Sigma x^2)(\Sigma y^2)}}$$

in which Σxy is the symbol for the sum of the product of the deviations.

After determining the standard error of difference between the means, the t-test was applied by the use of the formula:

$$t = \frac{X - Y}{SD_x}$$

in which X and Y are symbols for the actual means of the two groups.

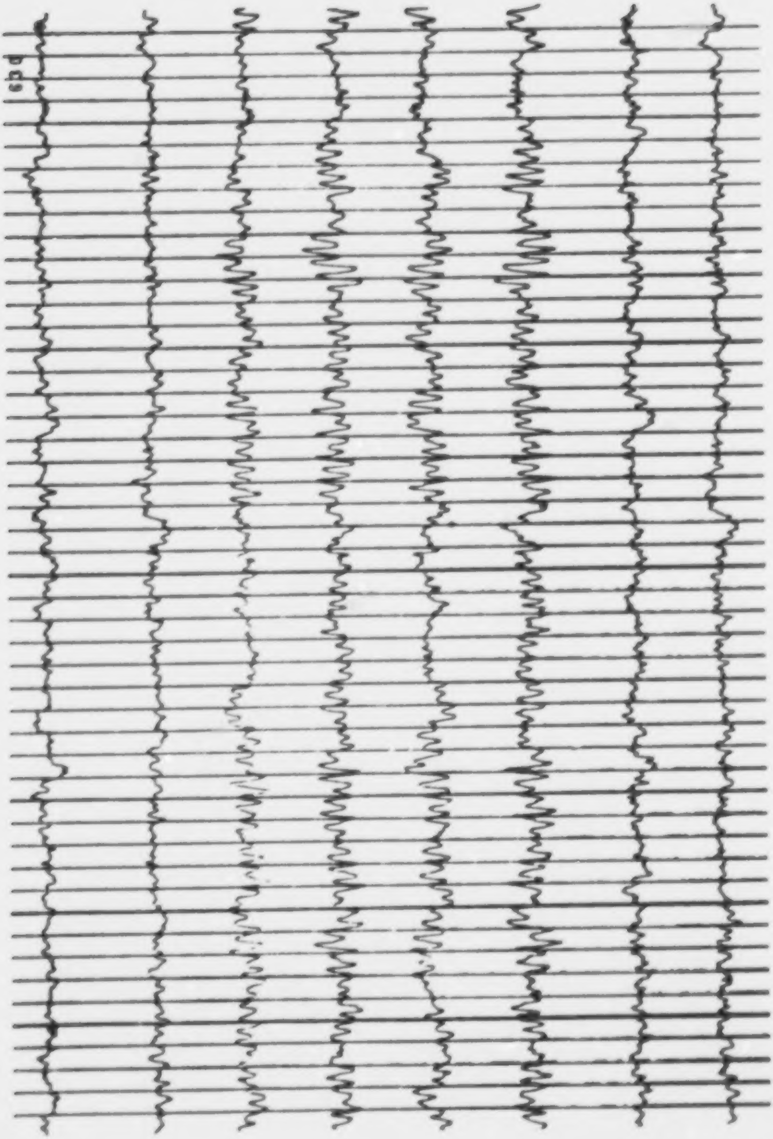


Figure 3. *A Sample from a Page of the Control Section of an Electroencephalogram*

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For the purposes of identification, the symbol X and its various forms was used to indicate that the data were from the control section. The symbols A, B, C, and their various forms were used to indicate that the data were from the music No. 1, music No. 2, and music No. 3 sections, respectively.

In the second statistical treatment of the data, which was undertaken to determine if there was a significant sex difference, the formula used for determining the standard error of difference between means was:

$$SE_D = SD\sqrt{\frac{N_1 + N_2}{N_1 \, N_2}}$$

in which SD is the symbol for the standard deviation of the means, and N is the symbol for the number of cases.

To determine the standard deviation, the following formula was used:

$$SD = \sqrt{\frac{\Sigma x^2 + \Sigma x^2}{(N - 1) + (N_2 - 1)}}$$

in which Σx^2 and Σy^2 are the symbols for the sum of the deviations squared.

The t-test was applied by use of the formula:

$$t = \frac{\bar{X} - \bar{Y}}{SD_{\bar{x}}}$$

AN ANALYSIS OF THE BRAIN WAVE DATA

The analysis of the brain wave data consisted of three major parts: (1) the effect of music on the brain wave frequency of the thirty subjects; (2) the effect of music on the brain wave frequency of the male and female subjects; (3) a comparison of the recorded brain wave frequency for each of the three categorized selections of music.

In the first part, a comparison was made of the mean of the data gathered in the first section of the thirty electroencephalograms in which no music stimulation was applied, with the mean of: (1) the second section of the thirty electroencephalograms in which the musical section "Air for the G-String" was used as the experimental factor; (2) with the third section of the thirty electroencephalograms in which the musical selection "The Music Box" was used as the experimental factor; and (3) with the fourth section of the thirty electroencephalograms in which the musical selection "La Marseillaise" was used as the experimental factor.

The four sections of the electroencephalograms were referred to as: (1) the control sections; (2) the music No. 1 section; (3) the music No. 2 sections; and (4) the music No. 3 section.

In the second part of the analysis, a comparison was made of the data recorded for the male subjects with the data recorded for the female subjects. The comparisons were made for: (1) the control section; (2) the music No. 1 section; (3) the music No. 2 sections; and (4) the music No. 3 section.

The third part of the analysis was divided into three sections. These subdivisions present a comparison of: (1) the mean of the

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data gathered in the music No. 1 section with the mean of the data gathered in the music No. 2 section; (2) the mean of the data gathered in the music No. 2 section with the mean of the data gathered in the music No. 3 section; and (3) the mean of the data gathered in the music No. 1 section with the mean of the data gathered in the music No. 3 section.

The Results

The results of the statistical treatment of the data indicated: (1) that there was a significant difference between the mean of the total frequency per second measurement in the control section of the thirty electroencephalograms, and the mean of the total frequency per second measurement in each of the three music sections.

The results also indicated that the t-ratio value was greater between the control section and the music No. 2 section, than it was between the control section and the music No. 1 section. Furthermore, the results indicated that the t-ratio value was greater between the control section and the music No. 3 section, than it was between either control and the music No. 1, or the control and the music No. 2 sections.

The results of further statistical treatment of the data indicated that in the control section, the music No. 1 section, the music No. 2 section, and the music No. 3 section, there was no significant difference between the means of the total frequency per second measurement recorded for the male subjects, and the means of the total frequency per second measurement recorded for the female subjects.

The results of the third part of the statistical treatment of the data indicated that there was a significant difference between the means of: (1) music No. 1 and music No. 2 sections; (2) music No. 2 and music No. 3 sections; and (3) music No. 1 and music No. 3 sections.

The results also indicated that the computed t-ratio value was greater between the music No. 1 and the music No. 3 sections than it was between either the music No. 2 and the music No. 3 sections, or the music No. 1 and the music No. 2 sections.

The comparison of individual total frequency per second measurement in the control sections with the individual total frequency per second measurement in each of the three music sections indicated that there was a wide range of individual differences in the way in which the music affected the brain wave frequency for separate subjects. Similar indications of individual differences was evident in the intercomparison of the three music sections.

In view of these findings, and within the limitations of this study, the null hypothesis of no difference must be rejected with confidence.

Conclusions

In light of the evidence, as the result of this study, the following conclusions seem warranted:

1. The frequency of the electric potential produced by the human brain is affected when certain categorized selections of music are applied to the subject as stimulants.

2. The introduction of certain categorized selections of music produces different effects upon the frequency of the human brain wave pattern of individual subjects.

3. There is no significant difference between the total frequency per second measurement recorded by the male subjects, and the total frequency per second measurement recorded by the female subjects when music is used as a stimulant.

4. There is a significant difference between the three categorized selections of music as evidenced by the recorded brain wave frequency when these selections are introduced as stimulants.

Implications

In view of the findings of this study, certain implications seem justifiable:

1. Music educators should be cognizant of the possibility that separate results might be obtained with careful consideration of the musical selections chosen for use in the directed listening program.

2. Since the experimental results of this study indicate that music does have qualities which affect one of the physiological processes of the human body, and since it is apparent that the effects of music are highly complex, the most important implication would seem to be to determine, through further scientific research, other effects music stimuli may have.

Extension of the Investigation

As the data for this investigation were collected and analyzed, various problems, which were not included within the limitations of this study, were recognized as being worthy of consideration for investigation:

1. The correlation of the effect of similar categorized selections of music on the frequency of the human brain wave pattern, with the results of this study.

2. The effect of certain categorized selections of music on the electric potential of the separate parts of the human brain.

3. An investigation of the reason for the decrease in total frequency per second measurement for a limited number of indvidual subjects when music is introduced as a stimulant.

4. The effect of certain categorized selections of music on the amplitude of the human brain wave pattern.

5. The effect of certain categorized selections of music on the electric potential of the brain in children of the lower elementary grade level, which would lead to possible correlation with the results of this study.

6. The effect of certain categorized selections of music on the electric potential of the brain in adults, which would lead to possible correlation with the results of this study.

7. The effect of certain categorized selections of music on the brain wave pattern of the mentally ill, or subjects with known abnormalities.

Suggestions for Further Study

In addition to the extensions of the present study, further related problems were indicated as being worthy of consideration for investigation:

1. Studies relating to the correlation of the effect of music on the electric potential of the brain with the effect of music on other body functions.

2. Studies relating to the effect of poetry on the electric potential of the brain, which would lead to a correlation with the effect of music on the electric potential of the brain.

3. Studies to determine the possible use of the findings of this investigation as a therapeutic device.

4. Further development of categorized lists of selected music.

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CRITIQUE I: F. BION McCURRY'S STUDY OF THE ENCEPHALOGRAPHIC REACTIONS OF CHILDREN TO DIFFERING SELECTIONS OF MUSIC

Ralph K. Watkins,
University of Missouri

Details concerning the operations and statistical treatment of data in Dr. McCurry's experimentation are omitted from this review, since these appear in the abstract which can be found elsewhere in this issue of the *Journal of Research*.

The essential contributions of this piece of research are to be found in the method of investigation and in the verification in the findings of the results heretofore derived from studies dependent upon the introspections of the subjects. Within the limitations of the knowledge of the reviewer, this is the first time that the reactions within the brains of subjects have been actually measured objectively while the subjects were listening to differing selections of music. With the availability of equipment, trained operating personnel, and time for application, the method opens up a whole new series of possibilities for studying the effects of music on human subects. The pioneer application of the method seems most significant, and in many ways may be more important than the actual findings reported.

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Older studies of the effects of listening to different types of music have depended upon the reports of the subjects themselves about how they felt upon hearing different selections of music. Such reports of feelings are obviously subject to many kinds of errors due to external conditioning factors which exist at the time of the experiment, or may have been applied to the subjects before entering the experiment. The present study seems to prove quite objectively that listening to music does change brain reaction, that the reactions in listening to the same music vary with the different subjects, and that the reactions of the same subjects change in listening to different musical selections. Obviously these things have always been assumed by both musicians and laymen. Existing introspective studies support the assumptions. Dr. McCurry seems to have the objective proof.

There are at present some rather severe limitations upon the widespread use of the method employed in this piece of research. Th electroencephalograph is not commonly available for use outside hospitals for the mentally ill. The fact that the machine has been used frequently for diagnosis of mental illness may make many potential subjects shy away from tests for normal reaction to music. Interpretations of results, the reading of the encephalograms, requires trained technicians. There are at present not enough of such technicians to make it possible to carry on many studies of numbers of school children or of unselected adults, in their reactions to music. The measurement with the machine requires individual application to subjects. This means that the whole process is exceedingly time consuming, or that the number of subjects that can be treated in any one group must be relatively small. The reading and interpretation of the graphs themselves is a very slow and laborious process. This tends, too, to limit the numbers of subjects in any one experimental group. The smallness of numbers in experimental groups tends to limit the application of conventional statistical procedures to the results obtained.

In examining the encephalograms of the individual subjects in this study the reader may speculate upon the significance of the amplitudes of the graphs as well as that of the frequencies. In the results reported, only the frequencies were used in interpreting results. It is very possible that the amplitudes of the waves may be quite as important as the frequencies. This would seem to be of special importance in trying to estimate the effects upon an individual of widely different types of music. In future experimentations of this kind it would seem desirable to devise some means of rapidly scanning, or counting, frequency in order to reduce labor and time in interpretation of encephalograms. Some way should be found for objectively determining change in amplitude so that results in amplitude can be reported in figures and submitted to statistical treatment.

The musical selections actually used in the study were chosen deliberately from those found in earlier investigations depending upon introspective evaluations. This seems a desirable feature in that an important part of the experiment derives from the objective verification of the results of these earlier experiments. Such choice also relieved the investigator of the burden of trying to establish presumed musical difference in a new set of selections. There is also the point that a *chain, or series, of related* research is much more informative than an unrelated or isolated experiment. The use of selections of music taken from the work of earlier investigators provides the chain of relatedness which seems so desirable. Results of this study can be compared more readily with the earlier ones because of the use of the same musical selections.

Probably of greater importance is the shortness of the parts of the selections used. This is at the same time related to the brief time of exposure to any one of the selections. The musical material actually taped and used for exposure to the subjects consisted of small excerpts and the duration of exposure time was quite short in each case. If the length of excerpts could be increased and the time of exposure for each selection lengthened, results might achieve a higher level of confidence. This whole question of length of excerpts and of time of exposure is tied in with the limitations imposed by the apparatus used. Involved are the application to individual subjects, the length of the encephalograms, and the problems of reading, measurement, and interpretation. Future experimenters, however, may well consider how to attack this problem of increasing the length of exposure to particular selections of music.

An additional experimental element lacking in this study is that of repetition. It would be highly desirable to determine whether or not the same subjects, under the same conditions, react in the same way to the varying selections of music. In other words, it would have been desirable to repeat the whole experiment and then compare the two sets of encephalograms of each individual subject to determine the extent to which the results are alike or different. Again, limitation on the use of the machine, the time involved in testing subjects, and the problems of interpretation of the graphs placed severe restrictions on the possibility of repetition. It is to be hoped that some future experimenter will carry on such an investigation to the point of repetitive verification of results.

The investigation has great merit as a pioneer study. It opens many doors and suggests almost endless challenges for future investigation. The group of subjects consisted of a small number of sixth graders. Do other sixth graders react in the same ways to the same musical selections? How do sixth graders react to other musical selections? How do the reactions of adults compare with those of children in listening to the same musical selections? How do the brain waves of musicians with varying degrees of musical training compare with those of laymen when listening to the same musical selections? The musical material for the present experiment consisted entirely of instrumental excerpts. A whole new series of experiments can be made with vocal and choral music. Comparisons can be made also between reactions to vocal music and those to instrumental music. It would be highly intriguing to compare the brain wave charts of a group of subjects when listening to music with the impulses of the same subjects when listening to the reading of poetry. These are just a few of the possibilities that Dr. McCurry's investigative technique suggests.

Much that can be done with the challenges outlined above depends upon further refinement in the application of the technique of this study. Much depends upon arriving at some quick means of determining the frequency of waves which appear on the graphs and of some quantitative means of estimating the significance of amplitude of these waves. Perhaps Dr. McCurry can solve these problems in his next investigation, or some cooperative music educator with access to suitable equipment may be able to aid in the solution to the mechanical difficulties. There is the further suggestion that more rapid progress can be made with the effects of music on the human brain if some foundation with funds can make available to music educators access to electroencephalographs and the technicians to operate them.

CRITIQUE II: F. BION McCURRY'S STUDY OF THE ENCEPHALOGRAPHIC REACTION OF CHILDREN TO DIFFERING SECTIONS OF MUSIC

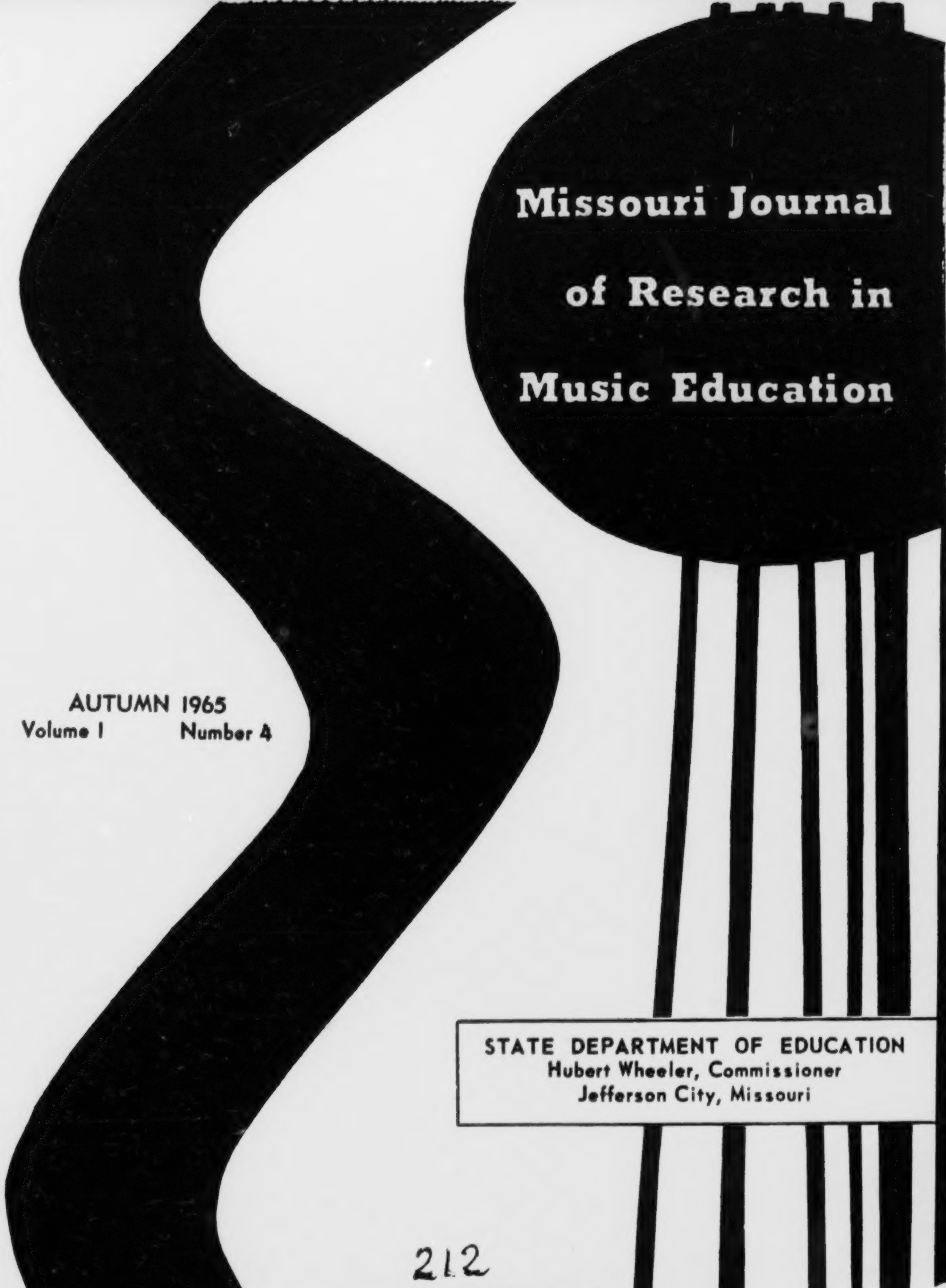
(Excerpts from correspondence with the Editor)

Ira Hirsch,

Central Institute for the Deaf

I thank you for bringing this thesis to my attention and for giving me the opportunity to look at this new piece of work. The review of the pertinent literature contained in the thesis is very competently done and will be a useful reference source for anyone interestd in this field. I am troubled, however, by the conception of the experimental work and its execution. The thing that bothers me about the conception is my belief that the problems pertaining to different affects of different kinds of music are essentially behavioral ones and should be studied behaviorally. The use of various adjectives, of rating scales, etc. has been difficult, to be sure, but is clearly relevant to some of the problems. The use of a physiological measure appears to me to be something of an escape from the immediate problem to one that is at least quantifiable but there is no clear relation to the emotional states that presumably are of basic inerest. The execution of the experiment itself suffers from at least one important omission. On the basis of the work that Mr. McCurry reports, I cannot conclude that those changes in frequency in the EEG that he observed have anything to do with the musical character of the acoustic stimulus that he used. I could still maintain the hypothesis that such frequency changes are characteristic of the EEG response to sound. From a logical point of view, the design would have been more complete had he included a condition in which, for the same period of time, he would have introduced some noise or other nonmusical sound. Here the implication that there is something in the musical message that is controlling these different frequency changes is not quite borne out directly by his observations.

THE END



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MISSOURI JOURNAL OF RESEARCH IN MUSIC EDUCATION

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SUGGESTIONS TO AUTHORS

Contributions to this journal should be sent to Alfred W. Bleckschmidt, Supervisor, Fine Arts Education, State Department of Education, or Lewis B. Hilton, Editor, Washington University, St. Louis. Authors should observe the following rules in preparing their manuscripts: The editors welcome contributions of a philosophical, historical or scientific nature which report the results of research pertinent in any way to instruction in music as carried on in the educational institutions of Missouri. Articles should be typewritten, with double spacing throughout, including footnotes, long quotations, and itemized lists. Footnotes should be placed consecutively at the end of the article, beginning on a new page, using triple spacing between notes. Authors reporting quantitative studies may substitute a list of references for footnotes in accordance with the practice followed in many scientific journals. In all instances, manuscript style should follow recommendations made in the MLA Style Sheet. The Chicago Manual of Style should be followed in setting up tables, charts and figures, which should be numbered and placed on separate pages. (Suggestion to the authors is reprinted from MENC publication, *Journal of Research in Music Education* by permission of the editors.)

INTRODUCTION

The Missouri State Department of Education is pleased to present this fourth edition of the Missouri Journal of Research in Music Education.

Research, experimentation, reports, and articles of a philosophical nature provide the basis for positive thinking and improvement in education. The reporting of research findings is necessary to disseminate the information to those in the field. Comments by music educators have assured us of the value and interest of the Journal to the music profession. The authors are to be commended for their contributions.

We encourage all educators, and especially those in the field of music, to become acquainted with the articles in this Journal. The information would be of value in the understanding, promotion, evaluation, and improvement of music education in our State.

P. J. Newell, Jr.

Assistant Commissioner,
Division of Instruction

PREFACE

The Missouri Journal of Research in Music Education is a publication devoted to the needs and interests of the school and college music teachers of Missouri and of the nation. It is published as a Bulletin of the State Department of Education. Besides the publication of reports of research or experimentation in progress or completed, included are abstracts of theses either completed or in progress, articles of a philosophical nature, as well as simple reports on the results of successful musical pedagogy.

Since this publication is not copyrighted, complete articles or excerpts from articles may be made without charge. In so doing, it is requested that credit be given to the Missouri Journal of Research in Music Education.

Copies of this Journal are obtainable without charge from the Missouri State Department of Education.

Suggestions to the Editor concerning the format of the Journal or the content of the articles included, are solicited.

Grateful appreciation is expressed to those who have assisted in any way in the preparation of this bulletin.—The Editor.

THE SENIOR COMPREHENSIVE EXAMINATION AS A MEANS OF IMPROVING MUSIC THEORY TEACHING IN MISSOURI'S COLLEGES AND UNIVERSITIES

DR. LEON KAREL
Northeast Missouri State Teachers College

PART ONE: THE INITIAL PROGRAM

In 1961, the College-University division of the Missouri Music Educators Association launched an experimental program aimed at improving the quality of theory pedagogy in its member colleges. After some preliminary discussion, the problem shifted from one of goals and methods of our present day theory courses, to the larger area of student competencies in theory. Specifically, it was decided to explore the area of the graduating senior music major's ability to put into practice the knowledge and skills learned during his four years of theory study. As the author stated in his address to the MMEA in 1964:

> The problem is not so much that colleges disagree as to what should be taught; MTNA, MENC, and NASM have pretty well standardized theory offerings at the college level. The trouble arises more frequently in the theory class itself, in the grading system, and in the whole process of acquisition of credit. Too often, the theory class operates in a sort of vacuum, unrelated to other classes, unrelated to future professional work, sometimes even unrelated to music! A typical student, having survived his theory classes, is assumed through some magic process to have permanently acquired the desired skills and knowledge. A series of such classes, when added up, produces the required number of credits, a mathematical process so satisfyingly precise on paper that we seldom bother to ascertain whether the hours of credit represent any usable skills or needed knowledge.

It was felt, then, that Missouri's attack on the problem of theory-pedagogy might best be launched by measuring the amount and kind of theoretical training possessed by our graduating senior music majors. The examination, in order to do this, would have to deal with practical applications of theory rather than paper skills, with problems whose solution required an ability to make theory actually work, rather than the ability to recall some abstract item of knowledge, isolated from other aspects of music. By measuring the degree to which our future teachers and practitioners were or were not able to do this, the schools involved might then have some clearer insight into the changes that might have to be made in their respective theory courses. Quoting again from the initial presentation of this program to the MMEA in 1964:

> If each music student were to regard his theory classes as a preparation for some future goal, some barrier, some examination which he knew he must pass before graduating, and if this examination were known to be based on something like real classroom teaching situations, the theory instruction and learning might well take on a more realistic, serious atmosphere.

Under the direction of the author, a "theory comprehensive examination" was worked out and presented to the MMEA College-University division for approval in its January 1964 meeting. The proposed scheme was adopted, and during that year, music departments in Missouri colleges and universities were asked to cooperate by giving the examination to their senior music majors. Initially, 140 copies of the examination were sent to the schools requesting them. These copies were mailed out in mid-September, to be returned to the sender by December 1st, if possible. Due to busy schedules, shortness of time, and underestimation of the work involved, only 40 examinations were returned to the author, and this study is based on the findings revealed by these returns.

The first phase of the study (the initial examination, its individual problems and aims) was reported in the article "Music Theory and Musicianship Teaching in Missouri Colleges and Universities: A Preliminary Report" found in the Autumn 1964 issue of the MISSOURI JOURNAL OF RESEARCH IN MUSIC EDUCATION, Volume 1, No. 3. The present article deals with the test as used by the several institutions, together with recommendations for its further use. A brief description of the original test follows:

Comprehensive Theory Examination

PROBLEM ONE: You are watching a copy of the music as a soloist plays his part for you. Correct any errors in rhythm, pitch, or phrasing which you detect. The music will be of average high school contest difficulty.

PROBLEM TWO: You are given a fairly simple choral piece of approximately 16 measures for 15 minutes of study. You are equipped with a chromatic pitch-pipe. At the end of the study period you will direct a small choral group in the number, correcting any errors they may make. Indicate only starting pitches on pitch-pipe; sing other pitches and chords for the group. Demonstrate suitable conducting techniques on fermati, meter changes, and so forth.

PROBLEM THREE: You are given a four-part vocal score in the choral style. Starting with only the tonic pitch, study this score carefully for 10 minutes. Then listen to a piano version pointing out errors in pitch and rhythm.

PROBLEM FOUR: At the keyboard, harmonize a simple given melody with left hand chords. Continue beyond the normal ending by phrase extension, modulation, sequence, and so on.

PROBLEM FIVE: At the keyboard, illustrate on request such theory features as types of chords, scales, modes, progressions, intervals, and so on. Be able to do the same vocally, where it applies.

PROBLEM SIX: The same features of theory as in Problem Five should be illustrated on your major instrument. If this is either voice, organ, or piano, this problem may be omitted.

PROBLEM SEVEN: Arrange a given melody of simple nature for either band or orchestra in full score, using various types of accompaniment, harmonic variety, simple counterpoint in a counter-melody, and so on. The work should take one day, done under supervision.

PROBLEM EIGHT: Using a given theme as a beginning, write a piece of music illustrating your knowledge of small forms. The piece should be in the nature of 60 measures total. The writing should be done in the space of 90 minutes time.

PROBLEM NINE: A piece of music will be played for you. As you hear it, listen carefully for such compositional features as themes, motives, formal structure, modulation, and so on. On repeated hearings, identify such features as they occur at specific places in the music.

In preparing the actual testing material, the author duplicated sample materials for each school as follows:

1. MATERIALS FOR EACH PROBLEM:
   - a. Problem One: Multiple copies of a clarinet solo excerpt of eight measures, for the students taking the test. One copy was provided for the clarinetist, with pitch and phrasing errors which the student was to mark on his copy as he heard the music being played.
   - b. Problem Two: A four-part choral piece which the student was to conduct. Singers were provided with copies containing pitch and rhythmic errors which the student-conductor was to mark.
   - c. Problem Three: A four-part piano chorale, with the same conditions as in problem two. Student was to listen to piano version and mark pitch and rhythm errors.
   - d. Problem Four: An eight-bar melody which the student was to harmonize and extend. Right-hand melodic line provided.
   - e. Problem Five: Ten items of keyboard harmony and theory which the student was to play at the piano. (see test results for list of items).
   - f. Problem Six: Eight similar items which the student was to illustrate on his major instrument.
   - g. Problem Seven: An arrangement for band or orchestra of a given melody. Student provided harmony, instrumentation, form, inner parts, countermelodies, etc. Original melody was eight measures in length.
   - h. Problem Eight: A five measure melodic fragment was given on which the student was to base a 60 measure composition.
   - i. Problem Nine: A list of 23 items pertaining to the musical structure of a Haydn quartet movement (see final results) was provided the examiner. As record was played, and as instructor called off numbers from one to 23, the student was asked to write what was happening in the formal structure at each point indicated.

2. RATING SHEETS:
   - a. For students—an evaluation sheet was provided for each student taking the examination, on which the instructor could rate his ability in solving the nine problems. Problems One, Two, and Three were scored on the number of errors detected while Problems Four through Eight were scored on the instructor's estimation of whether the student did well or poorly in his keyboard harmony, composition, orchestration, and so on. Problem Nine was scored on the number of items correctly identified.
   - b. For instructors—the "Institutional Evaluation Sheet" was included as a check on the effectiveness and usefulness of the examination itself. On it, each institution was asked to evaluate the comprehensive examination in several respects (see final results).

PART TWO—TEST FINDINGS

RESULTS FROM STUDENT GRADING SHEETS

	Problem One (Clarinet Solo—40 Responses.)		Problem Two (Choral Directing—30 Responses.)		Problem Three (Piano Chorale—40 Responses.)	
Possible Errors	Pitch Percent	Phras. Percent	Pitch Percent	Rhythm Percent	Pitch Percent	Rhythm Percent
0	12.5	2.5	0	3	10	2.5
1	10	0	14	6	5	0
2	10	2.5	4	17	7.5	7.5
3	2.5	2.5	14	30	2.5	7.5
4	10	7.5	14	17	0	7.5
5	7.5	12.5	24	27	7.5	27.5
6	12.5	12.5	14		2.5	17.5
7	0	12.5	6		10	5
8	10	10	6		5	15
9	2.5	0	4		12.5	7.5
10	10	10	0		5	2.5
11	7.5	10			0	
12	0	10			0	
13	5	2.5			2.5	
14	0	5			2.5	
15					2.5	
16					2.5	
17					2.5	
18					5	
19					2.5	
20					7.5	
21					2.5	
22					0	
23					2.5	
24					0	

PROBLEM FOUR (Harmonizing simple melody with l.h. chords.) 40 responses.

	Teacher Rating Scale				
Problems	(Best) 1 Percent	2 Percent	3 Percent	4 Percent	(Worst) 5 Percent
a. Use of harmonics	15	42.5	37.5	5	0
b. Use of sequence	30	22.5	30	15	2.5
c. Use of phrase ext.	12.5	25	37.5	17.5	7.5
d. Use of modulation	17.5	20.5	35	17.5	10
e. Sureness and ease	10	22.5	50	15	2.5
f. Variety of accomp.	7.5	30	37.5	17.5	7.5

PROBLEM FIVE: (Theory performance at the keyboard.) 40 responses.

Problems	Teacher Rating Scale (Best) 1 Percent	2 Percent	3 Percent	4 Percent	(Worst) 5 Percent
a. Mel. min. scale of A	50	25	17.5	2.5	5
b. ii triad, Bb major	52.5	17.5	15	2.5	12.5
c. G min. 7th, open h.	30	35	15	12.5	7.5
d. Secondary dom., Gm.	30	22.5	22.5	15	10
e. Triad + added 2nd	50	17.5	10	20	2.5
f. Desc. m 6th int.	57.5	7.5	17.5	5	12.5
g. Circle of 5ths	20	30	30	5	15
h. F maj. to G min. mod.	20	20	27.5	17.5	15
i. Lydian mode	40	12.5	5	10	32.5
j. B minor scale	60	15	20	5	0

PROBLEM SIX: (Theory performance on major instrument.) 40 responses, except on section "h" where 17 were recorded.

Problems	Teacher Rating Scale (Best) 1 Percent	2 Percent	3 Percent	4 Percent	(Worst) 5 Percent
a. A min. 7th arpeggio	68	16	12	4	0
b. C harm min. scale	68	12	12	8	0
c. Asc. min. 9th int.	64	16	12	8	0
d. Tonic arpeggio F m.	80	8	8	4	0
e. Altern. M and m 3ds ascending from C	56	20	16	8	0
f. Desc. m6th interval	64	12	16	1	4
g. Series of asc. P4th	60	28	12	0	0
h. Mel min. scale of A	50	25	19	6	0

PROBLEM SEVEN: (Arranging for band, orchestra.) 15 responses.

Problems	Teacher Rating Scale (Best) 1 Percent	2 Percent	3 Percent	4 Percent	(Worst) 5 Percent
a. Accuracy of trans.	60	20	0	20	0
b. Use of inst. range	53	14	33	0	0
c. Inst. comb., color	20	40	40	0	0
d. Counter melodies	33	27	7	33	0
e. Inner parts	27	27	40	6	0
f. Use of form	54	0	40	6	0

PROBLEM EIGHT: (Small form composition.) 29 responses.

Problems	(Best) 1 Percent	2 Percent	3 Percent	4 Percent	(Worst) 5 Percent
	Teacher Rating Scale				
a. Ability to write 60 bars in 90 min.	27	17	45	7	4
b. Use of extensions	30	10	40	17	3
c. Modulation usage	17	21	41	21	0
d. Use of sequences	42	24	21	13	0
e. Formal structure	38	21	34	7	0

PROBLEM NINE: (Listening analysis.) Scale below represents number of listening clues correctly identified. 30 responses.

Scale	Responses
20-23 (Excellent)	5%
15-19 (Good)	30%
9-15 (Average)	30%
4-8 (Poor)	35%
0-3 (Very Poor)	0

INSTITUTIONAL EVALUATION

Five institutions rated the test as a whole. The ratings fall into two parts: (a) For individual problems, and (b) For the whole examination. The individual test problems were rated on the familiar scale from 1 (excellent) to 5 (very poor). Individual ratings are shown in each box below.

THE INDIVIDUAL PROBLEMS

	1	2	3	4	5	6	7	8	9
a. Ease of administration	11 22	14 5	11 13	11 22	11 2	11 2	11	12	11 1
b. Attitude of student	11 34	12	11 23	11 33	11 23	12 3	12	13	12 2
c. Attitude of teacher	12 3	12	11 22	13 3	11 3	11 3	12	12	11 1
d. Overall success of problem	2 44	34	22 43	12 3	12 3	12 2	13	24	22 3
e. Effect on maintaining theory practice 4 years	11 3	13	11 22	11 3	11 4	11 4	12	13	11 2

General idea of the examination rated: Excellent, 3; Good, 2.
Problems that should be eliminated: None, 3 No. 2; 1 No. 6; 1.
Problems that should be revised: No. 1-4; No. 2-3; No. 3-3; No. 4-3; No. 5-3; No. 6-2; No. 7-2; Yo. 8-2; No. 9-2.
Should the test (revised) be part of the music major's requirements? Yes, 3; No, 1; and Perhaps, 1.
Should the test also be given at end of sophomore year? Yes, 1; No, 0; Perhaps, 3.
Should "my" college make it a requirement if others do? Yes, 2; No, 1; Perhaps, 2.

COMMENTS FROM THOSE PARTICIPATING IN THE EXPERIMENT

1. Revision of certain problems should be undertaken so as to include fewer errors. Identification takes time.
2. More attention should be paid to ascertaining whether the student can actually sight-sing or not.
3. Students found it difficult to determine both pitch and rhythm errors in two hearings. As a teacher, one is familiar with a given piece before having to determine errors.
4. Problems arise when student singers are involved. They, too, make errors not included on test.
5. Would like to see some item to test ability to determine style in different eras.
6. Problems should be clarified, clearly stated. Method of indicating errors could be improved, especially in problems 1 and 3.
7. (The following responses were from graduate students taking the test in one institution. Some had had teaching experience.)
   a. On Problem Four (harmonization of melody at keyboard)

      "I think every music undergraduate and graduate should be expected to play the piano well enough to do this. The ear-training part of keyboard harmony is not emphasized enough . . . this is one of the most important skills a music teacher has."

      "Preparation in improvisation should be an important part of the music teacher's education."

      "Knowledge of the keyboard is very valuable in any kind of music."
      "What about the person who has played piano very little? Are undergraduate requirements on the instrument sufficient to prepare every student to do this much?"

      "The ability to transpose, play by ear, improvise, and accompany at the piano is an invaluable aid to any music teacher."

   b. Problem Eight (composition of small forms).

      "This kind of test is appropriate, although the length seemed a bit too great for a years-ago graduate to complete in the time."

      "To be able to do this is fine, but there was hardly enough time."

      "A good question—however, after a few years of not writing chords and melodies, it can be rugged."

SOME GENERAL COMMENTS AND OBSERVATIONS

1. Most music educators at the secondary level and lower are constantly concerned with correcting errors made by their students. No other skills or personality factors will compensate for this ability. In Problem One, we find a great variation in our students' abilities to do this. Out of 14 pitch errors, 65% of those tested could identify less than half. 35% of those taking the test identified 3 errors or less! On the other hand, 25% could spot 9 or more of the 14 possible errors. It was easier to detect phrasing errors, apparently. 60% of those tested found more than half of them.

   In Problem Two (detecting errors while directing a choral piece) the situation is again akin to what the student will be doing in his profession. Of 10 possible pitch errors, 46% of those tested could find less than half. 24% found 5 errors, and 30% were able to get from 7 to 10. Rhythmic errors were much easier to find. 27% found all of them, while 17% got 4 out of 5, and 30% detected 3. When the problem was shifted to a four-part chorale played on the piano, the ability to hear pitch errors showed a much wider variation. In Problem Three there were 24 pitch errors. 25% of those tested could hear 3 errors or less! Another 25% heard between 5 and 8 errors. The third quarter of the group could find between 9 and 15 of the errors, while the last fourth got from 16 to 23 of the possible mistakes. In actuality, the curve is slightly bulged at both extremes. In the middle group of scores, only 10% of those tested heard from 10 to 14 errors. It would seem that students are either well able to detect errors in pitch, or very little. In contrast, the rhythmic error factor in this same problem falls in a much more normal curve.

   In comparing the three ear-training problems of the test, we might conclude that detecting pitch errors when merely listening requires a different level or type of ability from that used to detect pitch errors while conducting. Certainly factors involving use of student groups, nervousness, and the time element come into play here. However, the fact that there is significant difference here suggests that we might think seriously about trying to identify a possible duality of hearing ability, and teach specifically for this factor.

2. The inclusion of certain aspects of theory such as keyboard harmonization and theory practice on one's instrument has thrown light on one important question in college theory teaching. Are we really teaching that which we know to be important to the future professional life of the student? Compare the ratings given to students on Problems Four and Five. The former attempts to measure theory as a creative tool, while the latter isolates bits and pieces of theory for measurement. Top ratings are significantly more frequent in the latter area! Does this reflect a facet of theory teaching we should be concerned about? Have we, indeed, concentrated on "facts" rather than teaching our students to put these to good musical use?

   Problem Eight, like Problem Four, seeks to measure theory as used in the construction of music. Again we have a contrast in Problem Six where single items are measured. The incidence of high ratings given shows clearly that students do much better in the latter type of theory work. An interesting corollary is seen in the comparatively low rating given in PROBLEM SEVEN to the writing of counter melodies in the orchestration, again a problem of using theory creatively.

Music is the one major art area in both secondary schools and colleges where creativity is NOT considered of at least secondary importance! Perhaps theory teachers need to address themselves to the question of whether it ought to be.

3. Many of the weak spots in this test, both from its inception and through its administration confirm the suspicion that careful thought should be given to college theory teaching from several points of view:
   a. Terminology—perhaps some measure of uniformity might be attempted in the area of agreement on terms and names.
   b. Method—should there be common agreement among colleges that theory learning should be evidenced on the student's part by his proven ability to put his knowledge into practical use? Are we as a profession satisfied with the present practice of compartmentalized coursework terminating in a series of exams?
   c. Product—the wide variations in ability shown in the individual test scores suggest strongly that we are graduating teachers ranging from very good to very poor in the practical aspects of theory work. Self-regulation and "standardization" of graduates by other professions has resulted in greater respect and acceptance by the public. Would it work in music education?
   d. Curriculum—are there areas of college theory work which are not useful to the future teacher, or which cannot be measured in terms of tangible competencies? If so, should we revise these, or eliminate them?
4. The author of this study wishes to remark upon the general atmosphere surrounding the whole endeavor. The interest shown by the several schools of the state was greatly encouraging. The labors of those who administered the exam were much appreciated. With this much interest among Missouri's schools, surely there must be sufficient momentum built up to carry the work ahead. Personally, this theory teacher is looking forward to a day when the colleges of the state can present a unified program in music theory of benefit to every music major.

PART THREE: PLANS FOR THE FUTURE

During the time that this program was being worked out and tested, a parallel program was being developed as another part of the MMEA's College-University division activities. This latter program dealt with the improvement of music history-literature instruction in the colleges of the state, and was directed by Miss Martha Wurtz of Washington University in St. Louis.

As the two programs neared their trial points, it became apparent that there was a point at which the two were overlapping, especially in problems such as listening and arranging, where matters of style so strongly influence the final judgment. Not only was there overlapping in the questions and problems, but it soon became apparent that there would be the time element to think of; few schools would be able to devote the necessary time to two full-scale comprehensive examinations in the student's senior year, and still cope with such other requirements as recital and practice-teaching.

At the January 1965 meeting of MMEA, at which the above results were presented, the membership voted to forward the following resolutions to the Executive Council: (author's italics)

1. That a committee composed of Leon Karel, Martha Wurtz, Wesley Forbis, Kenneth Dustman, Ralph Hart, Paul Pisk and Lewis Hilton be appointed (with no financial commitment implied from MMEA) to continue the history-theory curriculum study with the view to working out a simplified, shortened series of examinations, and with the *history and theory sections amalgamated into one examination*. This new version will again be sent to all college music departments in the state early in the Fall of 1965. Colleges will be asked again to administer the examination to their *senior music majors*, returning the results to this committee by December 15. New findings will be reported to the MMEA meeting in January of 1966.
2. Upon receipt of the new information, further revision of the examination should be undertaken, if necessary, after which MMEA should strongly urge Missouri's music departments to make use of this device for the purpose of raising the minimum level of competency in the area of general musicianship throughout the state of graduating music education majors. Of course, no attempt at compulsion should be undertaken. Colleges choosing to use the tool would be free to modify it to suit their own needs.
3. With some unity of purpose among the state colleges, MMEA should start a program *to encourage high schools to include as much of this training in their work as possible*. A brochure should be printed and circulated in the high schools of Missouri, setting forth the music theory requirements which colleges will want their entering majors to have. Such items as basic piano facility, ability to read more than one clef, sight reading and sight singing, and thorough knowledge of scales and intervals might be stressed. *High school students should be encouraged to get this type of training prior to coming to college*, and high schools should be encouraged to provide it.
4. When the high school student enters college as a music major, he should be provided a list of theory skills which he will need to master before graduation. During his four years of work he should be constantly urged to go beyond the minimum set, doing additional work in areas where he is weak. The aims of the college should be twofold: to graduate music educators with well developed theory skills and to prohibit inadequate students from entering the profession.
5. The committee to be empowered to begin work on a proposal to the Department of Health, Education and Welfare for funds to underwrite the whole theory-history-musicianship curriculum project. This proposal should be submitted by the MMEA executive committee to the Department of HEW as soon as it can be prepared and approved by that body.

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STRUCTURED LEARNING AND MUSIC READING

Barbara Cook
Washington University

The Initial Teaching Alphabet

A very close parallel exists between the learning of language and of music; both are oral as well as visual skills; both are learned vocally before they are leaned visually. Hearing plays a vital role in the development of each; the child must be able to differentiate the sounds of the language before he can learn to speak correctly just as he must learn to differentiate pitches in order to sing in tune. The English language and music also share a lack of logic and consistency in their written forms.

The language, derived from a mixture of Anglo-Saxon (from Low German), and Norman-French (from Latin), has in its development since the 15th century added vocabulary from every locale colonized by the British as well as from European languages. The result is a language rich in expressive potential but filled with contradictions concerning the rules of spelling and pronunciation. Bernard Shaw illustrated this lack of logic beautifully when he proposed adding another word to the language:

GHOTI:
GH as in enough
O as in women
TI as in nation (to spell the word, FISH).

Musical notation, adapted in a similar fashion for the transition from the early modal music to diatonic then atonal music, has also become increasingly intricate and confusing. It failed to achieve complete accuracy in describing even the modes as the whole and half steps had identical appearance. The jumble in 20th century musical notation closely approaches GHOTI in terms of realized flamboyant confusion. As early as Bartok (1881-1945) the use of un-key signatures appeared; Hindemith disdained key signatures for his own works altogether (because they did not fit the structure of his music), leaving behind a stream of assorted accidentals. Even J. S. Bach's music still has performers complaining about accidentals and double accidentals plus the challenging blackness of many of his works. Rhythmic notation is also somewhat confusing; logic might lead one to believe the more imposing symbols might well receive more time; instead, the less time one is allowed to count flags and bars the more flags and bars there are to be counted.

As both orthography and musical notation are symbols meant to be transformed into meaningful sounds (or mental images of meaningful sounds as in the case of silent reading of either), lack of correlation between the symbols and their indicated sounds create obvious stumbling blocks for the beginner. The years of practice and application required to master the intricacies of both language and music follow quite logically in the wake of the complications and contradictions profferred by their written forms.

Recognizing the difficulties encountered by children in learning to read and write the English language, Sir James Pitman devised an adaptation of the alphabet which aspires to bestow some degree of uniformity upon written English. Originally called the Augmented Roman Alphabet,

LABLE

it is now known as the initial teaching alphabet or i.t.a. (always written in lower case). Sir James and his associate, Mr. John Downing, have been testing i.t.a. extensively in and around London, England, since the autumn of 1961. Bethlehem, Pennsylvania joined the movement in the fall of 1963, and since that time many other American school systems have been sufficiently interested to try i.t.a., including Mary Institute and the University City Public Schools in St. Louis County.

What is i.t.a.? The initial teaching alphabet follows:

æ - ænjel (angel)
b - bell
c - cat
d - dog
ee - eegl (eagle)
f - fish (fish)
g - gœt (goat)
h - hors (horse)
ie - ies creem
j - jack-o-lantern
k - kee (key)
l - lieon - (lion)
m - muŋky - (monkey)
n - nest
œ - bœt (boat)
p - pensil
r - rabbit
s - santa claus
t - tæbl (table)

ue - uenited stæts
v - valentien
w - wagon
y - yœ yœ
z - zeebra
ƨ - siƨƨors
wh - whisl
ch - chær (chair)
th - thaŋksgiviŋ
th - fethr (feather)
sh - shɷ - (shoe)
ʒ - televiʒon
ŋ - riŋ
ɑ - ɑrm
au - automobeel
a - appl
e - egg
i - indian
o - ostrich

u - sun
ω - bωk (book)
ɷ - bɷt (boot)
ou - oul (owl)
oi - boi (boy)
ʀ - girl

paul and sally at the see

"heer wee ar at the see," sed paul's muther.
sally and paul ran doun tω the see.
paul ran very fast intω the see and sally ran in after him.
"dɷ not gœ sœ fast," shee sed.
"ie cannot gœ aƨ fast aƨ yɷ." ①

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This may seem confusing to the adult following a cursory examination; after only one hour of using the symbols it begins to flow quite naturally.

Pitman began work on his teaching alphabet under the assumption that the complexities and inconsistencies of traditional orthography are an important cause of failures in beginning reading. He appears to have simplified the initial learning in three ways:

1. Fewer characters need to be learned. As only lower case is used the total number of symbols in i.t.a. is 44 opposed to 52 in traditional orthography when both upper and lower case are included. (Which they are in primers.)
2. Fewer whole word representations need to be learned. Because only one form of each letter is used, each whole word printed in i.t.a. has only a single printed form.
3. Less phonemic print-signals need to be learned. For example, the 18 —lower case print—signals for the pheneme *oo* in *too, shoe, flew, do, through, rheumatism, flue*, etc., is cut to only one in i.t.a.[2]

i.t.a. presents 50 elementary phonic facts to learn; traditional orthography has hundreds of alternatives in lower case alone, more than 2,000 if upper case and script are included. In words like *lane, mine, rule*, the silent *e*, which changes the vowel sound necessitates a reversal in the direction of reading; i.t.a. never breaks the left to right rule.

Dr. Raymond J. Scheele, Professor of Education at Hofstra University, Long Island, New York, makes these comments concerning the mental skills children should master and the best means of instrumention:

> In the elementary program the mental processes of classification, definition, evaluation, comparison, inference and explanation and others must be logically developed.
>
> The new curriculums are not data oriented as were the traditional, but are operation oriented. The operational task; that is, the intellectual task, is the job of the school. We must work with what will move the child to the next stage.[3]

Traditional orthography defines its own means of presentation as its complex visage automatically shapes the teaching of all its varied rules and forms into a data oriented task for young children in which they must simply commit words and facts to memory, then wait four or five years to find the sense of it all. i.t.a., on the other hand, presents discernable patterns which would seem to shape the teaching of this system into the mold of an operational task; i.t.a. gives children uniform symbols which they can learn to manipulate more readily.

To relate this to the stages of development, exercising the physical power of speech corresponds roughly to Stage 1 in that it is the sensory motor aspect of learning language. Comprehensive and skilled reading involving reversibility is Stage 3. The teaching of traditional orthography at Stage 2 level has been largely a matter of learning parts of many structures by rote without comprehension of the whole (except on the part of exceptionally insightful students). Perhaps using a logical set of symbols to transform orthography into meaningful sounds bridges this psychological gap in that the child does not need to perform internalized and reversible operations, Stage 3, before he has gained insight into the system and thus

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needs to be working at the Stage 2 level.[4] Once the structures have become definitive and secure in terms of working with accurate and consistent pictorial entities, Stage 2 operations, the mind is then prepared to progress into Stage 3 and the development of reversibility in relating random patterns to an established mental structure.

i.t.a. produces very outstanding results as regards reading i.t.a.; short-term indications are that transition to traditional orthography is neither impossible nor unduly difficult. The program has gained enormous momentum in the United States; reports from Cleveland, Ohio, and Bethlehem, Pennsylvania, indicate the same enthusiasm shown by proponents of the program in St. Louis County.[5] Subtracting a measure of its success in deference to the Hawthorne Effect still leaves ample evidence of its success in assisting children to conquer language skills more quickly, and, for a given age, more competently.

Pictorial Music Notation

The nature of musical notation predestines the teaching of music reading into a data oriented task just as in the case of traditional orthography. True, music is not nearly as complicated as language, but it is not exercised as consistently.

Many a child of six has never even tried to sing; many others have tried without realizing their failure. But for the eagerness of these same children to learn and their lack of embarrassment in approaching the learning of new skills, the situation would be very grim.

Consider singing to be Stage 1 of the developmental hierarchy in that it is a sensory motor act, a manipulation of the voice, and Stage 3 is represented by the ability to use all of the musical symbols to produce meaningful sounds. What lies between to instrument the middle stage in a fashion children really comprehend? Why is music reading so easily forgotten that a group of third graders who read well in the spring return the next fall as fourth graders who need a complete refresher course? Lack of practice for three months is a part of the answer, but three months should not be sufficiently long for children to forget skills which had attained any degree of real meaning.

At the present time almost every method which includes music reading includes some variety of teaching device designated to tie the diatonic interval pattern to memory so the student can sing intervals correctly by rote response. Whether the device is syllables, numbers, hand signals or shape notes, the reason for using them is the same. Since the diatonic scale has discrepancies between interval relationships and corresponding notation due to the two half steps (i.e., in the key of G, consecutive lines beginning with G to B, a major third, B to D, a minor third, etc.), these devices have been necessary to establish a point of departure. The devices are of little assistance in reading modal or post-romantic music; they are confusing even in the minor. La, do, mi just does not sound like a tonic chord any more than does do, mi, sol with a lowered mi. Add a few accidentals and children become quite confused.

The notation has altogether too many possible variations; any two notes (minor third or more) plus chromatic alterations produce nine different sets of pitches, five different intervals. Add a third note plus

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chromatic alterations and the possible variations increase to 27 different combinations of sound.

Of course children are not expected to deal with all of these complications in elementary school, but they are asked to do many things in a certain way just because that is the way it is! They are asked to sing half steps where whole steps have been and vice versa, as soon as more than one location for the tonic note has been used. If more than one key is not used in the first year of note reading, the location of the scale steps tends to become so fixed in children's minds as to be almost immovable.

Certainly the appropriate key signatures are present; this may indirectly teach children to categorically reject learning them as they are always there—meaning exactly nothing to the student except that they look like possible complications he might rather avoid. As hearing music everywhere can result in hearing, but never listening to any of it, the unexplained presence of a bevy of meaningless symbols may be training the young to ignore them completely. Even if students question these meanings, they do not understand the answers very well if at all; often a question asked and unsuccessfully answered is less than no question. The eventual goal of reading music may seem impossible to the child when he fails to understand most of what he sees—he needs an attainable goal. The new math does not display quadratic equations for viewing over a three or four year period before finally attempting to teach the student the use of the equations, hoping that by some mysterious osmotic process the viewing will summon insight.

A Pictorial System of Notation

A pictorial system of notation might well offer the same advantages offered by i.t.a. in the teaching of reading. It could bridge the gap in the stages of psychological development by utilizing notation which is consistent in the relationships it describes, and eliminating the necessity for the clutter of qualifying symbols which make notation pleasing to the eye, but confusing to the comprehension of the beginner. Perhaps it would instrument the development of a solid structural foundation, the existence of which would serve to anchor the reversible thought processes necessary to deal with the complex structures of traditional notation.

The rhythmic notation indicates clearly the exact number of units each note is to be given; the mass of the note corresponds more closely to its length. The introduction of dotted notes should be easier with this notation as the fractional relationships are accurately pictured.

The system furnishes a musical number line; the key note is the arbitrary point of reference. The exact location of a particular letter name is relatively unimportant for beginning singers; the essential issue is the relationship of pitches, the structural element of melody.

In this notation a major and minor scale do not look the same; intervals which sound the same do look the same; those which sound different look different and the degree of difference is measured. The number of lines used could also vary to correspond with the range of each song.

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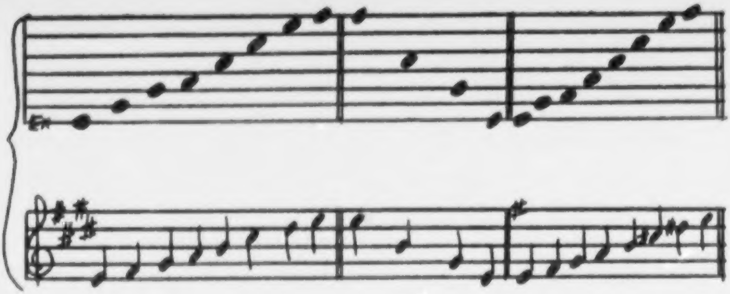
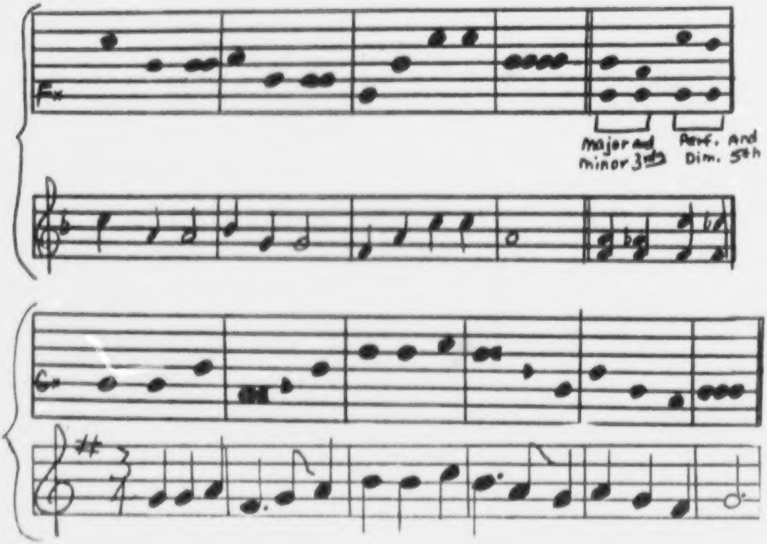
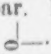

E♭


F
Major and minor 3rds
Perf. and Dim. 5th
C

SEQUENCE OF PRESENTATION

Introduce pictorial notation as soon as a group can sing in tune with assurance (late first grade or early second.)

A possible sequence of presentation for an initial trial follows:

1. Teach the words of several songs in rhythm; have students read the words of other songs in rhythm according to rhythmic notation.
2. Using songs for which the words and rhythm have been learned, add melodic lines as follows:
   a. Chromatic two and three-note melodies.
   b. Whole tone melodies with two, three, four then more notes.
   c. Pentatonic melodies.
   d. Diatonic melodies with skips no larger than a third.
   e. Diatonic melodies with larger skips.
3. Continue using pictorial notation until a class has attained sufficient skill to:
   a. Read songs of equivalent difficulty with "America."
   b. Build chromatic, whole tone, pentatonic, major and minor scales.
   c. Read rhythmic notation readily.
4. Change to standard rhythmic notation first; place notes carefully so each one occupies its correct proportional amount of space within the bar. Long notes could be followed by a line to indicate duration:
   
5. Using a keyboard instrument, have the class build scales to illustrate the necessity for chromatic alterations in standard notation. Point out the natural half-steps on the keyboard and correlate them to the notational system. Do several songs in both pictorial and standard notation.
6. Throughout the entire sequence be certain that students identify intervals and scale patterns by sound as well as by sight.

The following hypothetical statements should be considered in any test of this method:

1. Pictorial notation promotes the development of music reading facility in the early stages, thereby lending momentum to the learning process and motivation to the student.
2. Accurate picturization of intervals and time values helps establish meaningful basic structures of interval relationships which can be retained by the student. (At least for the summer.)
3. Pictorial notation can open new possibilities to children relative to their ability to notate original compositions.
4. It can serve remedial purposes for older children or adults as a means of introducing music reading.
5. The transition to standard notation can be accomplished without undue confusion.
6. In the transition, the meanings of many of the complexities of traditional notation would be discovered by the student; for example, the function of accidentals and key signatures would be apparent to students as they explore the interval adjustments necessary to build tonalities in traditional notation.

FOOTNOTES

1. Downing, John A., "Teaching Reading with i.t.a. in Britian," *Phi Delta Kappan*, April 1964, p. 326.

2. Ibid., p. 324.

3. *Teaching Students to Think*, Resume of talks by Dr. Raymond J. Scheele, University City Public Schools.

4. Elkind, Larson, Van Doorninck, "Perceptual Decentration Learning and Performance in Slow and Average Readers," *Journal of Educational Psychology*, February 1965, p. 50.

5. i.t.a. bulletin, Vol. 2, No. 1, Fall 1964, and Vol. 2, No. 3, Spring 1964, Initial Teaching Alphabet Publications, Inc.

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THE FRENCH HORN, A RIGHT HANDED INSTRUMENT

KENNETH SCHULTZ

St. Louis Symphony Orchestra

To a person not thoroughly familiar with the technique of the horn, it may seem strange that the horn is fingered with the left hand while most of the other brass instruments are designed with the right handed public in mind. The manipulation of the valves with the fingers of the left hand is, of course, a recent innovation. The horn had and still has a right hand technique which dates back almost to the beginning of its use in the orchestra.

The development of the horn went through four distinct stages.

1. The era of the natural horn.
2. The addition of crooks and the emergence of the hand horn.
3. The invention of valves and the use of one, two, and three valved instruments.
4. The development of the double horn.

A look at the second stage, particularly the use of the hand horn will not only help us to better understand the problems of the early hornists, but will help the student to appreciate the capabilities of right hand technique when applied to a modern instrument.

By the beginning of the eighteenth century the natural horn[1] had developed to the extent that it was accepted in the orchestra.[2] We find that in Hamburg (1705), two cornes de chasse were used for the presentation of Reinhard Keiser's "Octavia." These instruments, of course, were limited to the partials of their natural harmonic series. It must also be remembered that these horns were held with their bells pointing straight up, or at least with the bell at head height.

To the horn player Anton Joseph Hampel (Hampl) goes the credit for the discovery of hand horn playing. Hampel was second horn in the King of Poland's famous orchestra in Dresden. During the year 1760[3] he experimented extensively with muting his instrument to modify the still raucous tone. He found that by fully muting or stopping the bell with a cotton-wool plug a remarkable change in pitch could be noticed and that by a combination of fully and partially stopping the bell, the entire chromatic range of the horn could be realized. He also found that the hand had the same effect as the cotton mute and could be used with greater facility. There is some question as to whether or not Hampel actually discovered hand muting.[4] Evidence exists that earlier players of the circular trumpet (Italian trumpet), such as Gottfried Reiche, Bach's principal trumpet player in Leipzig, used their hands in the bell to modify some of the more seriously out of tune harmonics. These harmonics were mainly the eleventh, thirteenth, and fourteenth. Like Hampel, they also used their hands to improve the tone. Hampel definitely can be credited with organizing the knowledge of hand stopping, improving it, and making it an accepted part of the technique of the great school of Bohemian horn playing.

Hampel should be remembered not only for his experiments in hand stopping, but also for being the man who taught the most outstanding horn virtuoso of the Eighteenth and Nineteenth Centuries. Historians agree that his student, Jan Vaclav Stich—known to the music world as Giovanni Punto (1748-1803), was a man whose artistic abilities were not matched until the recent short career of Dennis Brain. Hampel was not a young man when he began his experiments with hand stopping and for this reason he probably never fully realized the potential of his discovery. With virtually a new instrument and a new technique, his student Punto was left the task of exploiting its possibilities.

Although Punto was undoubtedly the master of hand horn playing, he was for some reason reluctant to leave a written record of how to produce these stopped tones. Although he had written several horn methods, none of them contained any detailed information on this subject. The first known author of detailed instructions for the use of the hand in the bell was Orthon Joseph Vandenbroek, a hornist in the Paris Opera Orchestra. His two works are"Methode Nouvelle et Raisonnee pour apprendre a donner des Cor, dediee aux Amateurs," published in 1797, and "Suite a la Methode Nouvelle et Raisonne," unpublished.

These works were followed by many other horn tutors. Excerpts from the best of these are still in use today. In 1803 Frederic Duvernoy published his "Methode pour le Cor" which was simply written and probably had the beginner in mind.

Five years later Heinrich Domnich, a student of Punto, came out with an exhaustive study of horn playing in his "Methode de Premier et de Second Cor." This work, written for the advanced student, was adopted as the official Paris Conservatory tutor. Every aspect of horn playing was treated in detail. It also contains historical notes which provide us with much of our information about the origin of hand stopping.

The most celebrated of all horn study books to come out of Paris Conservatory tradition was the "Methode de Cor Alto et de Cor Basse." This work was written by Louis-Francois Dauprat in 1824. Like Domnich, he covered every aspect of the technique of horn playing in detail. His work surpasses the others in that it lays much more stress on the development of good musicianship and taste.

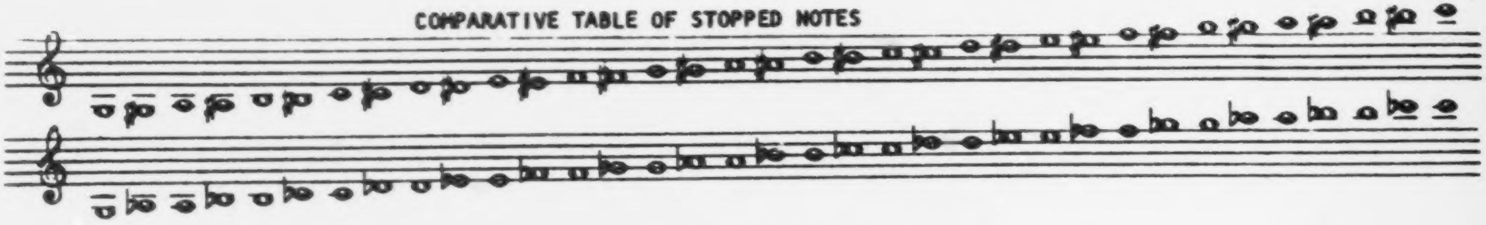
The last great horn tutor to come out of France was Gallay's "Methode pour le Cor," c. 1845. This major work for the hand horn came thirty years after the invention of valves for brass instruments. France was the last stronghold of hand stopping and resisted the use of the valve horn until the beginning of the Twentieth Century. This resistance to change can probably partially be traced to Gallay's book and his teaching at the Paris Conservatory.

In general hand horn playing persisted until about 1850. Its relatively short carrier produced a wealth of studies and horn concertos as well as many artists capable of performing them. When the valve horn first came into use it was played with hand horn technique. At first the valves, usually two, were considered merely a quick and easy way of changing crooks. Hand technique was retained and only the weak notes (those requiring too much stopping) were the ones on which the hornist changed valves. We also find that during this period of overlap, composers wrote for two pairs of horns—two hand horns and two valve horns.

Although not all teachers agree with me, I find it important for all students to eventually learn the technique of hand horn playing. This is important if for no other reason than to give us an emergency alternate technique. Since most horns have valves which are of the string action variety, the danger is always present of their breaking down. I have seen many instances where a horn player had to finish a performance one valve short and without right hand technique, he would have been in trouble. More important than this is that a knowledge of hand horn playing helps us to overcome the problems of intonation and hand muting, which are discussed later.

The following Comparative Table of Stopped Notes shows the degree of hand stopping recommended by some of the great hand horn specialists. It should be noted that although they generally agree, there still are quite a few differences. One probable explanation for this is that these men used instruments of slightly different design with different acoustical problems. Another is that they undoubtedly differed in the amount of compensation they used with their lips to adjust faulty intonation.

COMPARATIVE TABLE OF STOPPED NOTES



Duvernoy 1803	N	+	+	+	+	N +	N	+	+	+	N	+ N	+	b	N	+	b	0	+	N +	N	+	a	+	N	+ N	+	+	N	+	+	0	0	+ 0	N
Domnich 1808	N	+	+	e +	d	0 e	N	+	e	d e	N	e c	+	d e	N	e +	d	N 0	e	0 +	N	e +	N	e +	N	e c	+	d e	N	0 +	d	0	N	N	N
Frolich 1811	N	+	+	+	d		N	+	+		N	d	+	d	N	+	d	0	d		N	d	N	d	N		c	d	N	d	+	d	N		N
Dauprat 1824	N	0	+	e +	c	0 e	N	e +	e	c d	N	d	+	c e	N	d +	d	+ 0	d	0 +	N	c +	N	c +	N	N c	+	e 0	N	0 +	e +	+ 0	N	+	N
Mengal 1835	N	+	+	e +	e		N	+	+	e	N	+	+	e	N	+	e	N	e	N e	N	e	N	e +	N	+	+	e N	N	N e	+	N	N	N	N
Gallay c. 1845					d	e	N	+	e	d e	N	e c	+	d e	N	e +	d	0	e	0 +	N	e +	N	e	N	N c	e	+ 0	N	N e	e	0	N	N c	N
Franz, O. c. 1880	N	+	+	+	e		N	+	+	e	N		+	d	N	+	d	+	e		N	e	N	e	N	e		h	N	e	+	N	N		N
Pree, Aug. 1911	N		+		d		N	+	+	e	N		+	d	N	+	d	N	e		N	e	N	e	N		d	N	N	e	+ N	N	N		N

N = normal hand position   + = fully stopped   0 = hand wide open   a = 1/3   b = 2/3
c = 1/4   d = 1/2   e = 3/4   Fractions equal the amount by which the normal opening is reduced.

Based on a table by R. Morley-Pegge in The French Horn, p. 101.

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Present Day Use of the Right Hand

An aid in holding the horn.—This is not as important today as it once was and still is in parts of Europe. Most American hornists support the bell of their instrument with the right thigh, giving both the left and right hands more freedom. The right hand, however, still is used to support the instrument in the bells up position.

Correcting faulty intonation.—When the right hand is inserted into the bell properly the pitch lowers about a quarter of a step. This is taken into consideration when the horns are manufactured. Closing the hand lowers the pitch and opening the hand raises it. If the right hand is inserted at a more or less proper distance, the main tuning slide should not have to be pulled excessively.

Most hornists take this change in pitch for granted and give little thought to what is happening as they manipulate the right hand in the bell. As the hand closes, great resistance is set up in the horn. The vibrating lip is actually slowed down by this resistance and the pitch naturally lowers because of the slower vibrations produced. It is an interesting experiment slowly to close the hand and at the same time compensate for the change in pitch and the increased resistance by tightening the lip and blowing harder. In normal playing, however, the right hand is valuable in adjusting intonation.

Modifying the tone.—This was Hampel's main reason for his experiments with the right hand and probably is still the most important use for the right hand today. If the hand is inserted in the bell at the point where the horn is in tune, this generally will eliminate the somewhat blatant tone of the instrument. Experimenting with the hand by placing it in various positions in the bell will show the different tone colors that can be produced and changed instantly. As the hand becomes more closed the tone becomes more covered and muffled. Intonation and carrying power change as well as the timbre when the hand position changes. Excessive right hand manipulation should be avoided because of the uneven tone color produced. This was one of the main objections to the school of hand horn playing even though its exponents kept the changes in timbre to a minimum.

Hand muting.—This is the process of completely closing[5] the bell with the hand to obtain the special effect tone color similar to that produced by a fiber, metal, or wooden mute. For many years there has been much argument as to whether or not hand muting actually raises the pitch. I do not hope to solve the argument, but simply wish to report what works well for me as well as for a great many horn authorities. As the hand closes in the bell the tone lowers to the point that it is a half step flat when the hand is completely closed. If one were to stop here the hornist would have to transpose a semitone higher to play the correct pitch. Most hornists, as well as myself, continue one step beyond this point. When the bell is tightly closed (a loose hand will not work well) it is an easy matter to overblow the note so that the pitch "snaps" up a full step.[6] What has actually happened is that when the hand is tightly jammed into the bell it stops the vibration beyond that point effectively shortening the tubing of the horn by the amount necessary to raise the pitch a half step. The resulting note, of course, will have to be transposed a half step lower.

Once the technique of hand muting is perfected it seems quite easy to produce at will. I must caution an instructor not to pass over this important phenomenon as a simple task to master for there are many problems to solve. One should evaluate the type of horn that the student is using (particularly the bell size), the physical characteristics of the right hand, and the type of muting effect required before imposing a fixed technique or hand position on the student. Generally speaking, we start with the hand in the normal open position, leave the fingers in this position, and using the knuckles as a hinge swing the heel of the hand in to close off the bell. The combination of a large throated bell and a small hand may require that the hand be thrust slightly farther into the bell in order to close it properly. A large fleshy hand usually makes muting easy while a large knuckled bony hand usually must be twisted in the bell in order to close it properly.

Most of the trouble occurring from hand muting is with intonation. It will take much experimenting to find the exact place in the bell for perfect intonation. As the hand goes further into the bell, and more tubing is closed off, the pitch rises. Most problems of intonation can be solved with "lipping" (changing the size of the lip aperture). Some of the more seriously out of tune notes can be adjusted by using alternate fingerings. Do not attempt to hand mute on the B flat side of the double horn as these notes are usually a quarter of a step sharp and cannot be adjusted easily. The great increase in resistance also creates a serious tuning problem as too little or too much compensation with the lip and diaphragm make it difficult for the inexperienced hornist to strike the correct note much less play it in tune. The bottom of the practical range for hand stopped notes is middle C, (horn in F). Although a few hornists can hand mute several notes lower and a rare one might be able to play in the entire low register, this is the point where most hornists stop.[7] Beyond this point producing the notes with any semblance of correct intonation and control is virtually impossible.

It is sad to report that few composers seem to have any idea about the problems of muting in general and hand muting in particular. This is evident by the many instances of their impractical and incomplete muting directions. Fortunately most conductors either do not care or do not understand the problem, for they let the hornists decide for themselves whether to use the hand or the fiber mute, regardless of the directions in the music. During the middle of a sustained note, for example, we frequently see the direction to insert a fiber mute. The only way this can be accomplished and still come close to following the composer's directions, is to substitute the hand for the mute. Many composers call for alternate hand muting and open notes in the extreme low register. Although horn players frequently have the freedom to decide which to use, one is certainly not an equivalent for the other. An artist takes advantage of the different timbres and substitutes only when nothing else is practical.

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The following is a list of muting directions that horn players frequently encounter in their music.

MUTED	HAND MUTED	REMOVE THE MUTE
muted	closed	open
	stopped	
sordino	chiuso	senza sordino
con sordino		naturale
mit Dampfer	gestopft	Dampfer ab
Dampfer auf		Dampfer fort
gedampft		Dampfer weg
		ohne Dampfer
		gewohnlich
		naturlich
		offen
soudine	sons bouches	ouvert
avec sourdine		sons naturels
mettez la sourdine		sons ordinaires
		sons ouverts
		sans sourdine
		otez la sourdine

The sign "4" over a note indicates that this note only is to be stopped with the hand. On a few occasions I have seen the direction "plugged," and I assume that the composer wants these notes hand muted.

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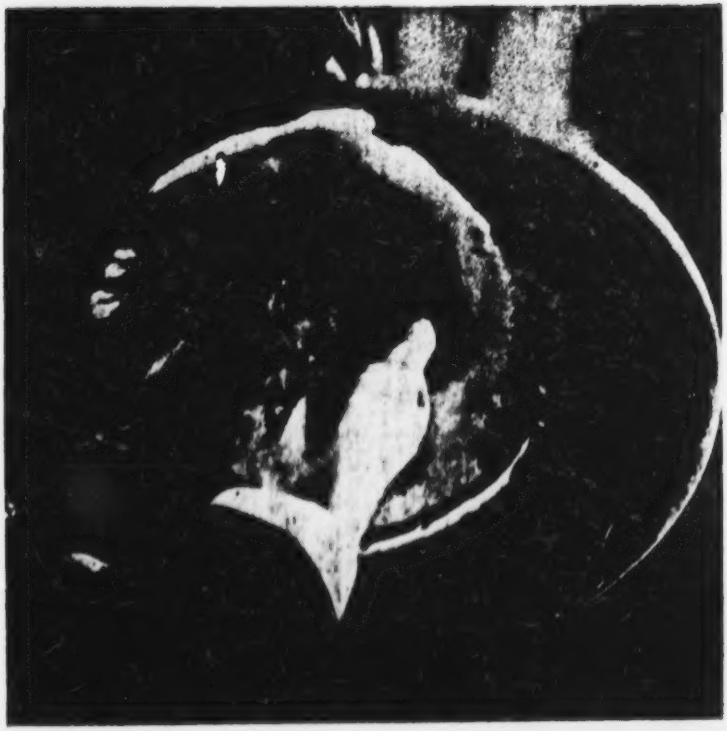

Fig. 1

Fig. 1 shows a very popular hand position used today with slight variations by perhaps a majority of the horn players. The hand is open with only a slight bit of cupping. This position produces a free unimpeded tone. Caution must be taken, particularly in loud passages, that the tone does not get raucous. A popular variation of this position places the hand on the side of the bell opposite the hornist instead of at the bottom of the bell. The column of air is deflected into the clothing and the resulting tone is somewhat more mellow.

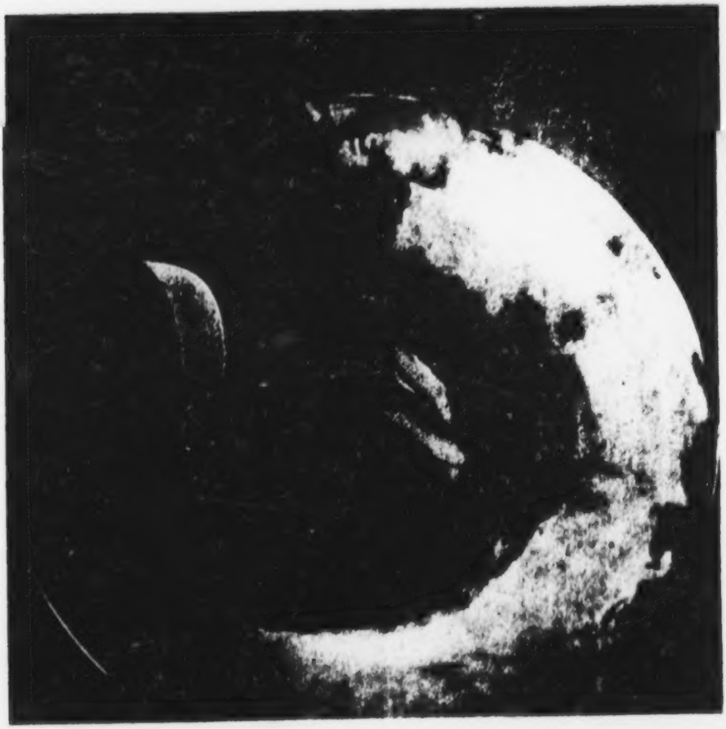

Fig. 2

Fig. 2 shows a hand position which, although it is not in wide use today, produces a fine centered tone that carries well. Since the fingers are not inserted deeply in the bell, the tone sounds open and not at all muffled. The parts of the hand touching the bell are mainly the knuckles of the thumb and forefinger rather than the back of the fingers. This particular hand position works well in the "bells up" position. I also favor it for general playing because of the tone it produces. A slight modification will have to be made when very rapid passages of alternate open and closed horn are called for.

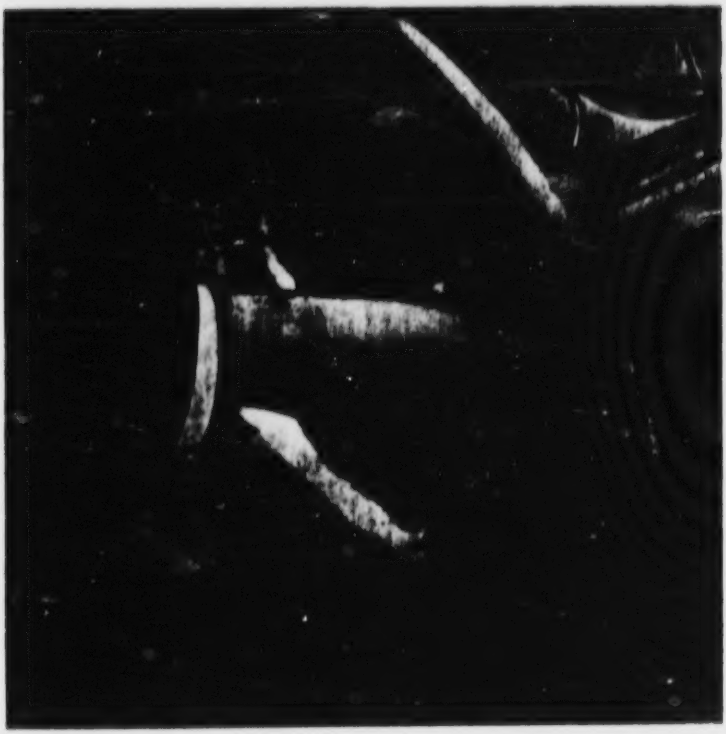

Fig. 3

In Fig. 3 we see a hand position used mainly by some of the older German hornists. The fingers are placed against the bell in the same manner as in Fig. 3. Instead of remaining flat the hand is arched so that the back of the hand approximately parallels the outer edge of the horn's bell. It produces a warm and rather dark sound. The main objection is that although this hand position sounds beautiful up close, the sound usually does not project sufficiently. Most hornists have difficulty projecting the amount of sound necessary to satisfy our present day standards.

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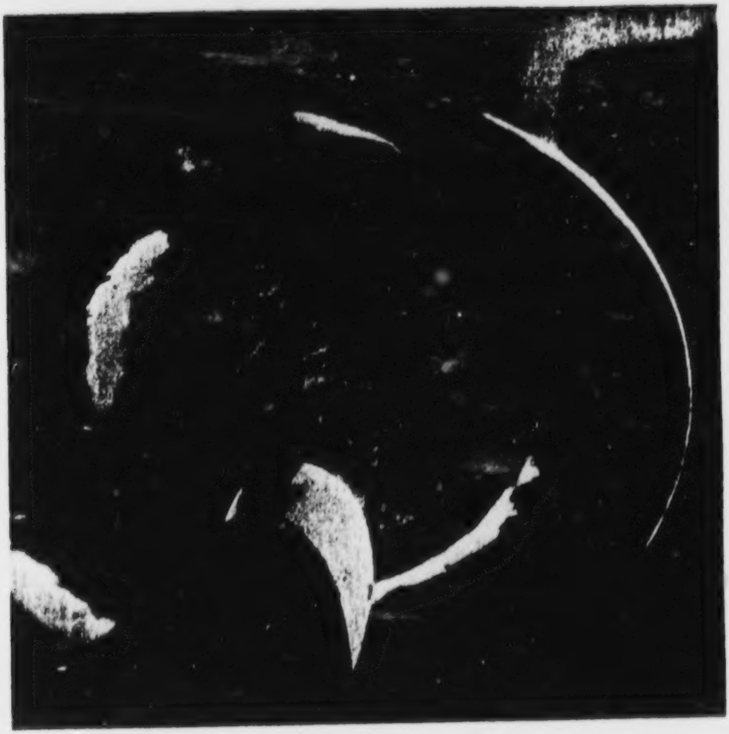

Fig. 4

Fig. 4 shows a rather unconventional hand position, but I have included it because it is used by several of the finest virtuosi. The fingers do not rest against the bell, but rather divide the bell into two equal parts. The fingers are inserted straight down the middle of the throat of the bell so that just the forefinger and the little finger touch the instrument. The air column is split, half passing on either side of the hand. There does not seem to be any great deal of consistency in the tone it produces among the various players, however, although these tones differ in timbre none of them have any objectionable qualities.

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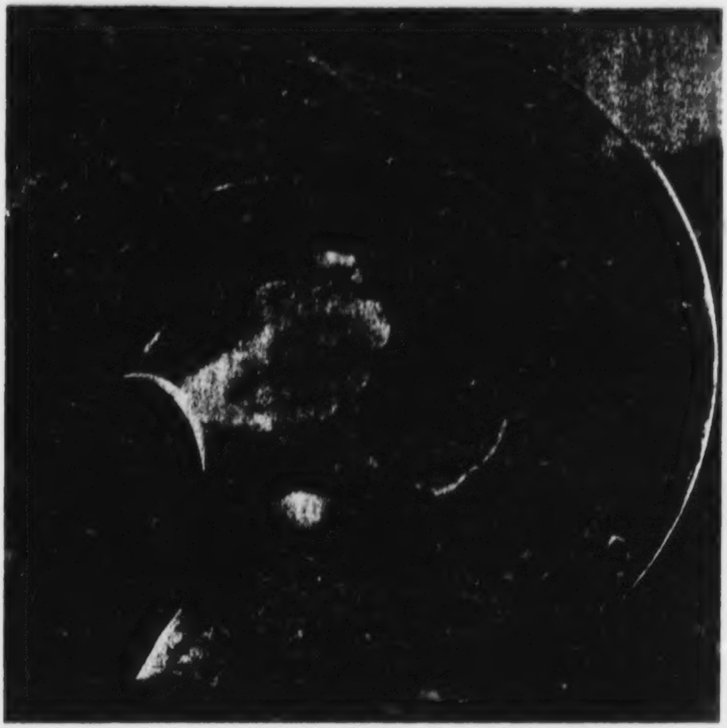

Fig. 5

In Fig. 5 I have shown a hand position which most hornists consider incorrect. I have included it because quite a few hornists, mostly students, but some professionals too, stubbornly cling to it. The bell is almost closed off and produces a muffled sound that carries poorly. This position is likely to create serious intonation problems.

FOOTNOTES

1. German, *Waldhorn*. French, *corne de chasse*. Italian, *corno da caccia*.

2. Robin Gregory, *the Horn* (Glasgow: the University Press, 1961), p. 28. "According to Mattheson (1713) its tone was 'less raucous than the trumpet's. . . . It produces a rounder tone and fills out the score better than the shrill and deafening trumpets'."

3. As a point of interest both Harvard and Groves Dictionaries give this date as about 1770. Forsyth Orchestration as about 1754.

4. Hampel was also credited with designing the "Inventionshorn," which was an improved natural horn whose crooks were inserted into sockets in the middle of the hoop instead of directly behind the mouthpiece.

5. It is assumed that the reader realizes that the right hand does not seal the air off completely but merely closes off as much as possible thereby offering great resistance to the air column as it passes around the hand.

6. Some authorities refer to this as lipping the note into place.

7. There is a special metal mute made which approximates the timbre of hand muting. This mute works well in the low register. Like the hand it stops the vibrations beyond its point of contact with the bell and the notes must be transposed to compensate for the rise in pitch. If for some reason a hornist finds that he must hand mute in the low register, I suggest trying to transpose the notes a full step lower instead of the usual half step. Although this definitely will not work on all horns and for all low notes, it may prove helpful on occasion.

Photographs by Israel Borouchoff

AN EXPLORATORY STUDY IN THE USE OF THE VIOLIN AND RECORDER AS TEACHING TOOLS IN ELEMENTARY SCHOOL MUSIC CLASSES

Dr. Charles R. Hoffer
Director of Music, School District of Clayton

In most elementary schools, the vocal and instrumental music programs have existed side by side for years with little contact or coordination between them. This is an unfortunate situation, not only because it encourages duplication and lack of continuity in what is being taught elementary school students, but more seriously because an opportunity for utilizing the strong points of each type of music instruction has been missed. For example, while sight reading ability can be furthered by singing activity only, improvement in reading is usually more meaningfully and easily accomplished when an instrument is utilized. On the other hand, good vocal music teachers have students engaged in a variety of creative activities, but there seems to be little room for creative work in the instrumental classes.

The violin and recorder were introduced into the curriculum of the two fourth-grade classes at the Meramec School in the School District of Clayton. The purpose of this experimental work was to bring about more music learning than was normally possible in basic music classes. It was hypothesized that an integrated instrumental-vocal class experience would allow for the utilization of teaching techniques and learning experiences that were not possible or probable in the exclusively vocal or instrumental class. The end, therefore, was music learning, with the instruments as an additional means to greater learning. The end was not a pre-band or pre-orchestra program, nor a test of ability or inclination of students for future instrumental study, nor fourth-grade performing groups. Music learning was conceived broadly, to include more accurate and understanding listening, a better comprehension of the musical nomenclature, and increased ability to think in a musical way about sounds and tonal patterns. In other words, the eye, ear, mind, and kinesthetic sense of the pupils were to be involved in the learning experience.

The utilization of violins and recorders, now in its third year, was begun in 1962 with Ann Jackson Kelley as teacher; it has been carried on since 1963 by Barbara Foster Harlow. The overall program was originally conceived by the author, who was in close consultation with the teachers, especially during the first year. Throughout its conception and execution, the entire music faculty discussed and made suggestions regarding the program. Teacher schedules were re-arranged once or twice each year so that interested faculty members had the opportunity to visit the classes.

Choice of Instrument

To test the idea of using instruments in basic music classes, the violin was chosen for one class, the recorder for another. The violin was selected because 1) the size of the instrument can be adapted to the students, 2) it is a recognized orchestral instrument, unlike the Tonette and others, 3) it requires the player to listen very carefully in order to achieve the proper pitch, unlike the piano, and 4) its range is suitable for performing vocal music. The recorder was selected instead of the Tonette or Songflute because 1) it has a delicate refined tone, 2) it has a greater range and can play more chromatic notes, 3) it has enjoyed success with school-age youngsters in Europe and Canada, and 4) much good music is available for it.

Schedule and Arrangements

Since the work was highly experimental, and since it involved the expenditure of a considerable sum of money for the instruments, the program was begun in only one school. The fourth-grade level was selected because it is the grade prior to the beginning of the conventional instrumental music study, and because of the higher maturational level of these students as contrasted with the primary grades. It was decided that the classes should be taught by the music specialist who would normally take care of that particular grade, rather than by the instrumental music teacher. This was done to insure that there would be no carry-over of the string teaching techniques from the regular instrumental classes. (Throughout the Clayton elementary schools, music specialists are responsible for almost all of the basic vocal music instruction.)

To remove the pressure of time from the teacher's mind, the experimental classes had music daily, twice each week for 30 minutes and three times for 20 minutes, making a total of 120 minutes each week. The work on the instruments consumed about 80 minutes per week, or two-thirds of the available time. The remainder of the time the teacher continued the normal basic music study. The classes normally would have received music every other day for a period of 30 minutes, or 75 minutes each week.

To offer some basis for evaluating the effectiveness of the integrated program, the teacher of the two experimental classes also continued teaching two fourth grades in another school. With these classes she continued the usual music curriculum.

Choices had to be made with regard to research techniques. The author is fully aware of the usefulness and desirability of research carried on under carefully controlled conditions that can lead to results capable of being subjected to recognized statistical evaluation. However, for several reasons it was decided that this was not possible or desirable in this experimental work. For one, the results sought were several and they were general. The determination of whether or not an activity encourages a youngster to listen to music more precisely is a topic sufficient for an investigation of only that point. It was felt that the experimental work, if successful, would suggest areas in which more precise, controlled studies could be undertaken. Therefore, the word "exploration" might best describe the nature of the experimentation.

Another reason for the use of less precise techniques is one faced by all researchers who are employed by public elementary or secondary schools. Education at this age is compulsory by law, and it is supported solely by society through the means of taxation. Accordingly, experimentation must be handled discriminately, since it involves expenditures of the public's money and the participation of children who are required to attend school. The ethical questions involved here could consume a whole paper. Rather than enter into a detailed discussion of this tangential topic, it is sufficient to state that in the author's opinion, public school employees may introduce research into the schools only when the experimental work 1) seems likely to produce results that are not detrimental to the learnings of the regular school program, 2) does not drain off effort and resources from the regular curricular program, and 3) is closely related to the regular curricular effort. The second reason applied in this case. It would have required undue effort and expense for Clayton to establish controlled conditions with equated groups and other checks, and to provide the additional teacher time.

Enough violins were provided so that half of the students in the class could play simultaneously. Two students were assigned to an instrument, and they were expected to use the "buddy system" in which each helped the other learn to play. No special violin method book was used. In the class trying the recorder, each class member received an instrument, and a more conventional program was followed. A method book (Priestly and Fowler, SCHOOL RECORDER BOOK I) was used the first year, but it was found to be dull and not helpful, so no book was used in subsequent years.

Class Procedures

To keep the mechanics of playing the violin as simple as possible, the students were not given the bow, nor were they instructed to hold the instrument under the chin. Instead, they held the instrument in banjo position, thereby eliminating some of the posture faults that might have developed.

As a first step, the class was taught to tune the D string only. This process was aided considerably by the fact that all violins had Caspari pegs. In spite of this aid, it was necessary for the teacher to assist the students considerably in their tuning efforts.

Next the students were shown how to play pizzicato E on the D string. No pearl dots or other visual aids on the fingerboard were allowed; the students were forced to rely on their ears. Simultaneously with this experience, the children were shown the notes D and E on the chalkboard, and were encouraged to sing the note names as they played and looked at them.

The class then proceeded in similar manner to F sharp and G on the D string. With each new note the idea of "discovery" was emphasized. For example, if the class was playing F sharp, the teacher would ask, "Now you're playing F sharp. What note would you play if you put your third finger down very close to the second finger?" Sometimes the teacher added another activity. She would say, "Let me se if I can fool you on the notes I am playing. The first note is going to be E." Then she would turn her back to the class and play a three- or four-note pattern on her violin, asking the class to name the notes, sing the phrase back, or play the phrase back. Occasionally she would ask the children to make all three responses simultaneously.

While a music teacher knows that a violin has an open A string, the fourth graders did not; they moved logically to the fourth finger A instead of an open A. A hurdle was encountered when they were asked to find B. Some students were stymied, but most of the class thought that they should just slide the hand up the fingerboard further. Seldom did a child suggest that another string might be considered. After the logic of using the next string was understood, the class was taught to tune the A string, and the work proceeded quickly to B, C sharp and D.

When the notes covering an octave had been learned, it was decided to have the class work with a song in the basal series, so that the singing and playing could be integrated. Songs such as "Annie Went to the Cabbage Patch," from MUSIC ACROSS OUR COUNTRY (Follett), were selected—songs in the key of D major with generally step-wise melodies. This presented extra challenge for the pupils, especially when it came to playing the song up to tempo.

The use of the violin engendered other music learning activities. One year the children became interested in what made strings sound higher and lower, which in turn led to the discussion of vibrations and tonal frequencies. Before long the class expressed the desire to make instruments of their own. The teacher agreed, provided that three conditions were met: 1) the materials had to be available around the student's home—nothing could be purchased, 2) parents and older brothers and sisters could not help, and 3) the instrument had to be tunable to the note D. Instruments were constructed by each child in the class, and the results showed much imagination and understanding. One boy created what he called a "bass box," which looked like an oversized banjo and was played upright on the floor like a string bass. The pitch was varied by changing the pressure of the foot on a pedal, which altered the tension of the single string.

The class using the recorders proceeded through a more conventional course of study. When possible, the discovery approach was used, as well as the other listening and reading techniques utilized with the violins. The students played many songs from the recorder method book and from the basal song books.

Surprising as it may seem, the students literally hounded the teacher with requests for permission to practice outside of class. So, after they had had some experience with the violin or recorder, the students were allowed to take them home and practice on their own. No specific homework assignments were given, although suggestions were offered. Students who prepared pieces on their own were given the opportunity to play them for the class. The practice at home also gave students the chance to pick out tunes by ear on their instruments. When a student found a melody, he played it for the class, which then proceeded to put it into notation. This led, in the use of violins, to some familiar melodies in quite unfamiliar keys.

Both classes engaged in the more usual creative activity such as composing a melody. To this the recorders added a second part, which consisted mainly of notes a third above the melody. The class using the violin also did some "orchestrations." For the most part, these consisted of triads for the accompaniment of a melody. The activity necessarily involved the students in a rather intensive study of chords. In both classes the tune fragments were played by the students and then notated.

After a period of approximately four months, the classes reached a level of proficiency that warranted moving the violin from the banjo position to the regular position underneath the chin. Two considerations had to be faced at this point. One was the slight regression experienced in many string classes when the students first try to coordinate the bow and left-hand fingers. As long as sufficient time remained in the school year, it was felt that this could be overcome and the normal progress resumed.

The other matter bore to the heart of why the program was attempted in the first place. If the bow were introduced, would this be a deviation from the original purpose of using the violin as a learning tool? Would the emphasis shift from musical learning to string playing techniques? After serious consideration by the string specialists, the basic music teacher, and the author, it was decided that the maximum musical learnings had been obtained and that further work in string playing was not the most feasible action under the circumstances. Therefore, the two fourth grades exchanged recorders and violins, and the experimental work was repeated.

Results and Conclusions

After three years of experience with the integrated program at the fourth-grade level, the following conclusions appear to be warranted:

1. The ability of the students to hear accurately and to remember what they had heard seemed greatly improved after their participation in the program. They seemed more sensitive to accuracy of pitch, even to the point of noticing that the class record player, which was a variable speed control, had been tampered with and was running slightly slow. They were quicker to recognize a new theme when it was introduced in a composition. In short, they seemed to listen better than the students who had no instrumental experience.

2. The students' attitude seemed to reflect increasing awareness of music as a challenging study, rather than as a diverting activity. While a continual effort was made in the regular sections of basic music to present music as an academic discipline like other subjects in the curriculum, the attitude of students in the experimental classes appeared to be noticeably better.

3. The students' ability to read music was decidedly improved, especially with regard to reading and reproducing pitch level. The increase in reading skill manifested itself in improved sight singing, as well as in reading with the instrument.

4. The exploratory program opened new avenues for the learning and appreciation of theory and simple forms. The attempts to "orchestrate" melodies led naturally to a study of simple chords and key.

5. The students were afforded many opportunities to engage in musical exploration on their own. By ear they picked out tunes they knew, and then related them to notation. They had the chance to consider the pitches involved in accompaniment. They had more than the normal incentive to be creative by making up melodies of their own.

6. The students who had experience with instruments did not sing significantly better than the students of comparable grade level who did not have the experience.

7. The learnings gained in the experimental fourth-grade classes was retained as the students moved on to grades five and six. The results achieved did not represent a temporary spurt of learning that faded away in a few months.

8. A comparison of results achieved by the violin group in contrast with the recorder group indicated that the use of the violin encouraged

students to listen better. More creativity resulted in the classes utilizing the violin. However, the students working with the recorder learned notes faster and were learning to play melodies sooner. They also lost interest in the instrument more easily than the violinists. Thus it appeared that work with the violin was more suited to the achievement of the goals of music instruction as presented initially in this article.

9. When the classes traded instruments shortly after the middle of the year, progress on the second instrument was noticeably faster than on the initial instrument. This was true regardless of the first instrument studied. Apparently some of the learnings of the previous instrumental study did transfer. It should be recalled, however, that the students were also five months older when undertaking the second instrument.

10. Experience with the violin did not seem to affect significantly the students' choice of instrument in the regular instrumental music program in fifth grade. Taking into account variations due to chance, there was a normal distribution in the choice of instruments. The string specialist did report, however, that the students who chose to continue their string experience seemed more ready to begin and made more rapid progress initially than the students from other schools who had not had experience with the violin.

In summary, the use of the instruments, especially the violin, did contribute toward the objective of a fuller understanding of music. The gain achieved with the instruments seemed to be significantly greater than that achieved by the regular program in which no instruments were used.

The Future of the Program

As soon as the time schedule and finances permit, the School District of Clayton will permanently incorporate the violin experience in the music curriculum at the fourth-grade level. Thus, each child may be expected to have about a semester's study with the violin. The recorder will be retained only if the particular music teacher desires.

The employment of the violin and recorder has proved successful under one set of circumstances. It is hoped that the experiment can be replicated in other school systems with other teachers, students, and learning conditions. Only in this way will the validity of the idea be truly tested.

AN APPRAISAL OF THE GROUP SINGING OF SIXTH GRADERS, AS TAUGHT BY CLASSROOM TEACHERS, IN TWENTY-FIVE ELEMENTARY SCHOOLS, IN A MIDWESTERN CITY OF 100,000

DR. CHAS. H. HANSFORD
Western Washington State College

ABSTRACT

Unpublished Doctor of Education, research study, University of Mo., 1962

INTRODUCTION

Statement of the Problem

The basic purpose of this investigation was to determine the musical results in singing achieved by sixth graders in the elementary school classrooms of a city of 100,000 when taught music by classroom teachers. There were three specific facets to be considered:

1. The quality of the singing of the sixth grade children, who had been taught by classroom teachers throughout all their six years of schooling.
2. Analysis of the quality of singing in relation to the criteria of objectives as developed by a composite of selected sources.
3. Analysis of the quality of singing in relation to the professional preparation of teachers of classroom music.

Need for the Study

There seems to be a definite need of more research and study in classroom teaching of music to offset the quantity of material written on the subject, most of which is based on opinion and too little on fact.

Teaching of music by the classroom teacher is one of the most controversial subjects in music education and one that is widely used and practiced. There is a lack of specific, objective information concerning the results of such teaching. The writer is seeking to have some objective data to determine specifically the kind of results achieved by classroom teachers.

Limitations of the Problem

This study was limited as follows:

1. This study was limited to the schools of only one school system. It was necessary to choose elementary school classrooms which had used classroom teachers to carry the full teaching responsibility for the entire six years of the elementary school. Twenty-five such classrooms in twenty-four schools were found, and since all were in the one large system the same objectives were sought in the classroom music, and the same type of music-consultant help was given.

2. The musical experiences of the children outside the classroom were confined entirely to the year of the study. No attempt was made to determine the number of years of previous participation.

3. The amount of time devoted to the outside musical activities was not considered nor was the time devoted to music in the classroom considered as a factor.

4. No attempt was made to discover the number of students who may have come from schools where special music teachers were used.

5. Socio-economic factors, which might have influenced home background, were not under consideration.

Status of Elementary School Music

Through the years elementary music education has consistently followed the lead of general education in philosophy and procedure. In turn, education itself has changed or expanded to meet the needs of changing society.

Today, in general, the elementary classroom teacher with the assistance of a music consultant, is teaching her own classroom music. There is considerable controversy as to whether the classroom teacher is equipped musically to teach the children. Those educators and administrators who put great emphasis on teaching musical skills believe that most elementary classroom teachers are not musically equipped to handle their own classroom music. Other educators and administrators who believe that teaching children to enjoy music is the prime motive for having music, are convinced that the elementary classroom teacher is the most desirable person to teach it. Many elementary classroom teachers themselves feel inadequate in teaching music.

In examining the musical training of the elementary classroom teacher today, it was found that various studies have been made on: (1) the musical experiences that create a favorable attitude toward teaching music; (2) the musical competencies that are needed by classroom teachers; (3) the number of semester credit hours and type of musical experiences needed by the classroom teacher; (4) the feelings of the teachers themselves in regard to their musical experiences.

In the factors affecting the attitude of elementary classroom teachers teaching music, it was found that those who like to teach music had experienced more vocal participation than did those who dislike to teach it.

The musical competencies that are needed by classroom teachers are definitely controversial. Some authorities require many; others suggest a minimum number. All require the ability to sing to some extent, but again the amount of skill desired is extremely varied.

The number of semester credit hours of music training needed by the elementary classroom teacher is also controversial. No decision is reached by the various authorities as to the hours needed, nor the type of musical experiences needed by the teachers.

The various studies indicate that many classroom teachers feel inadequate in teaching music. The teachers themselves feel the greatest weakness of elementary music has been the lack of related classroom experiences, and not enough vocal training.

As may be noted from the beginning of music in the public schools, efforts have been made to provide the elementary classroom teacher with musical experiences that have been adequate for instructing students. It may be seen that the amount of musical training needed has depended upon the prevailing philosophy of the time. At present the amount depends upon the objectives for having music in the classroom. It seems debatable

whether attitude or musical skills is the desired outcome. Therefore, no specific amount or kind of musical experiences can be determined. It is hoped, however, that something may be learned from results obtained from a sampling of singing recorded in a situation where elementary classroom teachers have taught the music throughout a six-year elementary program. This study is concerned with the musical experiences of the teachers that have led to the rating results obtained from the recordings.

Techniques of Collecting Data

The writer approached the director of music education and the director of curriculum in Topeka, Kansas, a city where the classroom teachers had been teaching their own music since 1951 with the assistance of music consultants. Permission was asked for, and granted, to record the singing of the sixth grades of 24 schools. These 24 did not include all the elementary schools of Topeka, but since several of the schools had been annexed during the last three or four years and had previously been using special music teachers, it was decided to confine the study to those schools which had been in the system in 1951. The next step was to arrange the scheduling of the recordings, which was done in conjunction with the three elementary vocal music consultants.

Arrangements were made with the teachers to record 25 sixth grades in these 24 schools. It was decided to make the recordings during the last two weeks of school in order that the children could complete six years of music under a classroom teacher. The recordings were all made in the regular classroom, the gymnasium, or auditorium, where the classroom music was generally taught.

All the teachers in the public schools of Topeka must have degrees so all the teachers used in this study had at least a bachelor's degree. In the hiring of teachers, the musical background of each is given some consideration. One of the elementary vocal consultants is usually included on the committee for the selecting of teachers.

The children of the Topeka schools are allowed to start at five, provided they will be six by January so the general age range in the six grades was from approximately 11 years, 5 months to 12 years, 5 months. There were a total of 818 sixth grade children whose voices were recorded, which makes an average of 32.7 children in each room. However, there were three schools with two sixth grade classrooms whose custom it was to combine the classroom music. Consequently, the number of boys and girls singing in each school varies from 25 to 56.

Because the recording of these songs in the various schools was carried out under different sound conditions, it was impossible to record every school in exactly the same manner as one would have been able to do in a recording studio. However, to minimize this problem, the same recording machine, microphone, and brand of tape was used for each school. The recording machine used was a Tandberg Tape Recorder, No. 4. The tape was Irish Recording Tape, 1½ Mil. Acetate, one-quarter inch, on a seven-inch reel. The duplicate copies of these recordings were made on the same type of recorder and tape.

The songs recorded were not especially prepared and practiced for the recordings, but were simply those chosen by the teachers from the year's repertoire of songs. The teachers were asked to choose a two- or three-part song which they felt the class could perform.

The schools were duly visited and the recordings made. While at each school an interview schedule was administered by the writer to the teachers to ascertain their musical background.

Effort was made to determine: (1) the amount and kind of pre-college instrumental training, (2) the amount and kind of pre-college vocal training, (3) high school music courses, other than applied music, (4) college music courses, (5) kind and amount of applied music in college, (6) the extent of musical experiences during student teaching, (7) number of years' experience teaching classroom music.

The next step was to find some means of evaluating the recordings of the singing of the children. It was finally decided to use the services of seven experienced teachers of music. They were representatives of music consultants at various levels. There were two city and one county consultant, one college and one university music consultant, a director of music education in a large city system, and a music editor for the publishing company of the music series used in the city under survey.

The objectives of sixth grade singing as developed from a composite of sources were the foundation for arriving at the categories on an evaluation sheet prepared for the consultants. The form used was patterned after the adjudication form used by the "National Interscholastic Music Activities Commission."[1] It is reproduced below:

APPRAISAL SURVEY OF SIXTH GRADE TEACHERS

Evaluation Sheet

Name of School .... Number of Singers ....

Music Selection .... Rating ....

Musical Accuracy (including intonation)

Tone (beauty, blend, control)

Diction (clarity of consonants, naturalness, purity of vowels)

Technique (breathing, precision, rhythm)

Harmony

Interpretation (expression, phrasing, style, tempo)

Other Factors

....
Judge's Signature

....
Position

The consultants were sent a duplicate copy of the tapes and evaluations forms for each school to be rated. The ratings were to be assigned on the basis of a "Suggestion Sheet" enclosed with the recordings. This "Suggestion Sheet" was prepared from Standards of Adjudication,[2] a manual of suggestions regarding the adjudication of Music Competition-Festivals. This manual uses a five division plan with a Rating I, Superior; Rating

II, Excellent; Rating III, Good; Rating IV, Fair; and Rating V, Below Average. The consultants were asked to follow this five division plan in making their evaluations of each tape.

Analysis of the Sixth Grade Singing

When the ratings of the recordings were returned, all were tabulated. The mean rating of the seven music consultants for singing for each sixth grade was found. Then the mean rating for each of the six musical factors for each school was found. These were tabulated so that the ratings between schools could be compared. Also, every musical factor could be compared with each of the other musical factors, and again, these could all be compared between schools. A sample of the tabulations is given in Table I.

TABLE I

MUSIC CONSULTANTS' RATING OF SINGING OF TWENTY-FIVE SIXTH GRADE CLASSES

School	Consultants							Mean Rating of Consultants
	A	B	C	D	E	F	G	
19	1	2	1	1	1	1	3	1.4
23	1	2	1	1	1	2	2	1.4
2	2	3	2	2	1	1	3	2.0
10	1	3	2	1	2	2	3	2.0
22	2	3	2	1	2	1	4	2.1
1	2	3	2	2	2	1	4	2.3
9	1	3	3	1	2	2	4	2.3
18	2	4	3	1	2	2	4	2.6
8	3	3	2	2	3	2	4	2.7
11	1	3	3	2	2	4	4	2.7
15	1	3	3	4	2	2	4	2.7
13	2	4	3	2	2	3	4	2.9
16	2	4	4	3	3	1	3	2.9
20	2	3	3	3	3	3	4	3.0
21	1	3	4	1	4	3	5	3.0
24	3	3	3	1	3	4	4	3.0
5	2	3	3	3	2	3	5	3.0
12	3	4	3	2	3	2	5	3.1
25	2	3	3	3	3	4	4	3.1
4	3	2	4	3	3	3	5	3.3
6	3	4	4	4	3	3	4	3.6
7	3	4	4	4	3	3	4	3.6
14	4	4	4	3	2	4	5	3.7
3	3	4	4	4	4	4	5	4.0
17	4	3	4	5	3	4	5	4.0

Mean rating of sixth grade singing for all schools—2.8

Range of ratings from 1.4 to 4.0

Ratings of Singing of Sixth Grade Pupils Compared With Teacher Preparation and Pupil Out-of-Class Musical Experiences

The musical training of the classroom teachers would seem to be a vital factor in the results of any elementary school music program. The experiences found to be most important in the musical training of the teachers as compared with their classroom musical ratings were those obtained during the years in college. Table II shows the college musical training of the teachers.

TABLE II

COLLEGE MUSICAL TRAINING OF TEACHERS OF CLASSES IN CITY SYSTEM INVESTIGATED

College Course	Number of Teachers	Per Cent
Music for Elementary Grades	14	56
Piano	7	28
Music Appreciation	5	20
Voice	5	20
Chorus	5	20
Other Instrument	4	16
Music History	4	16
Theory	4	16
Harmony	3	12
Other	3	12
Teaching Instruments	2	8
Band	2	8
Music Curriculum	1	4
Music Student Teaching	1	4
Orchestration	1	4
Conducting	1	4
Sight-Singing	1	4
Total number of teachers taking courses	18	
Per cent of teachers taking courses		72

It may be seen that one course, Music for Elementary Grades or its equivalent, had the highest number of teachers who had taken such a course. If the ratings of the music classes of the teachers who took Music for Elementary Grades are compared with those classes whose teachers did not take the course, there seems to be a consistently higher trend in the ratings. A comparison of the ratings for those teachers who had taken the music methods course and the teachers who had not taken the course may be seen in Table III.

TABLE III

COMPARISONS OF CONSULTANTS' RATINGS OF SINGING OF SIXTH GRADE PUPILS AND TEACHERS TAKING OR NOT TAKING MUSIC METHODS

	Music Methods	No Music Methods
	1.4	2.0
	1.4	2.3
	2.0	2.9
	2.1	2.9
	2.3	3.0
	2.6	3.3
	2.7	3.6
	2.7	3.6
	2.7	3.7
	3.0	4.0
	3.0	4.0
	2.1	
	3.1	
	4.0	
Total Teachers	14	11
Mean Rating	2.4	3.2

The mean rating of the classes of the teachers who took a music methods course was 2.4 compared with a mean rating of 3.2 for the classes of the 11 teachers who did not take a music methods course. This would appear to show considerable difference. To determine whether there is any significant difference a chi-square test of independence in a fourfold contingency table 3 was used. A chi-square of 4.44 was obtained. With one degree of freedom it was found a P was between .02 and .05, and hence chi-square is significant, showing a significant relationship between the teachers' training in a music methods course and the ratings received by her pupils.

Another aspect of the teacher's training is that of applied music in college. Table IV shows a comparison of the ratings of each class and the teachers who had some applied music and those who did not have any applied music in college.

TABLE IV

COMPARISONS OF CONSULTANTS' RATING OF SINGING OF SIXTH GRADE PUPILS AND TEACHERS HAVING OR NOT HAVING APPLIED MUSIC IN COLLEGE

	Applied Music	No Applied Music
	1.4	2.1
	1.4	2.3
	2.0	2.7
	2.0	2.7
	2.3	2.9
	2.6	3.0
	2.7	3.0
	2.9	3.0
	3.0	3.1
	3.1	3.3
	3.3	3.6
	3.7	4.0
		4.0
Total Teachers	12	13
Mean Rating	2.5	3.8

It may be seen that 12 of the 25 teachers had some applied music, either vocal or instrumental, in college. The mean rating of the pupils of these teachers was 2.5, compared with a mean rating of 3.8 achieved by the pupils of the teachers who had taken no applied music in college. In order to determine whether this represented any significant difference the chi-square test of independence in a fourfold contingency table was used to obtain a chi-square of 5.29. With one degree of freedom this gave a P of between .02 and .05 and is significant of the .05 level of significance, showing a significant relationship between the applied music training of the teachers and the ratings of their pupils.

Still another area of the teachers' preparation was that of the music teaching experiences of the teacher while doing practice teaching. It was found that eight of the 25 teachers had some experience teaching music during the practice teaching period. Table V shows a comparison of the consultants' rating and teachers with or without music teaching experience during practice teaching.

TABLE V

COMPARISONS OF CONSULTANTS' RATINGS OF SINGING OF SIXTH GRADE PUPILS WITH OR WITHOUT MUSIC TEACHING EXPERIENCE DURING PRACTICE TEACHING

	Music Teaching Experience During Practice Teaching	Without Music Teaching Experience During Practice Teaching
	1.4	1.4
	2.0	2.0
	2.3	2.1
	2.6	2.3
	2.7	2.7
	2.9	2.7
	3.0	2.9
	3.1	3.0
		3.0
		3.0
		3.1
		3.3
		3.6
		3.6
		3.7
		4.0
		4.0
Total Teachers	8	17
Mean Rating	2.5	3.2

Testing the difference between the mean rating, 2.5, of the pupils with teachers having music teaching experience in practice teaching and the mean rating of 3.2 of the pupils whose teachers did not have music teaching experience in practice teaching, the chi-square test in a four-fold table was again used. A chi-square of 2.89 was obtained. With one degree of freedom it was found that P was between .95 and .10 and is thus not significant to show any relationship between the ratings and teachers who did or did not have experience teaching music during their practice teaching.

Table VI makes a comparison of the training in music of teachers in the five highest rated schools with the music training of teachers in the five lowest rated schools. It may be seen in the table that there is a difference of 2.02 in the mean rating of the highest rated schools compared with the mean rating of the lowest rated schools. By inspection this difference of more than two ratings appears significant. In the area of piano training there is a difference of 3.4 years in the number of years of training. Using

Garrett's formula for the reliability of the difference between means in small independent samples,

$$SD_D = \sqrt{\frac{E \times^{2}}{(N-1)}}$$

significant difference at the .01 level was obtained.[3] Using the same formula, no significant difference was found in the means for the teaching experience of the highest and lowest rated schools.

TABLE VI

COMPARISON OF MUSICAL TRAINING OF TEACHERS IN THE FIVE HIGHEST RATED SCHOOLS WITH THE MUSICAL TRAINING OF TEACHERS IN THE FIVE LOWEST RATED SCHOOLS

	Means of Teachers, Highest Rated Schools	Means of Teachers, Lowest Rated Schools
Ratings	1.78	3.8
Piano Training	5.0 Years	1.6 Years
Teaching Experience	14.0 Years	10.8 Years
High School Vocal Participation	3.2 Years	2.4 Years
Music Methods Course	1.0 Course	0.2 Course
College Music Courses	2.4 Courses	0.8 Courses
College Applied Music	1.2 Courses	0.4 Courses
College Ensemble Experience	1.0 Year	0.4 Year
General Music, High School	0.4 Course	0.2 Course
Other Instrumental Training	2.2 Years	2.0 Years

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

1. This study was to determine the quality of singing when taught by classroom teachers (non-music specialists). It has been determined that the singing of sixth grade children in this study is adequate to a quality above the middle on a scale of 5.

2. The most effective course in the training of teachers to teach music is Music for Elementary Grades or its equivalent.

3. Applied music in college was found to be significant in the preparation of teachers.

4. Piano training of teachers was found to be significant in the preparation of teachers.

5. The music training and experience of the classroom teachers is extremely varied. If this is typical of classroom teachers, then elementary classroom teachers have more music than might be anticipated.

6. With the amount of time spent on music in the classroom, the background and training of both the children and teachers, the students performed very well.

Recommendations

As a result of the findings and interpretations of this study, and in addition to the conclusions which have been drawn from them, the following recommendations in the form of further research, are recommended:

1. Because of the small sampling involved, some of the comparisons between teachers' experiences and the ratings of their classrooms show only slight relationship. It is felt that if a similar study could be done on a larger scale, something could be learned of the type of musical experiences that are most helpful to classroom teachers in their preparation for teaching classroom music. This could be of considerable value in planning the musical training of the classroom teacher in which there is general uncertainty.

2. A comparison of the results between schools in which classroom teachers teach the classroom music and the results from schools in which special music teachers teach the classroom music should be made. This would give some indication as to whether there is significant difference between the musical results from teaching by special music teachers and classroom teachers.

3. Since the Music Methods course, Music for Elementary Grades has been of tangible aid in helping classroom teachers to teach classroom music, it is recommended that this course be a requirement for all teachers teaching their own music. A significant relationship between applied music training of teachers and the ratings received by their classes indicates that some applied music should be required of all teachers teaching their own music.

4. The teachers' piano training and vocal participation in high school music groups showed no significant relationship to the ratings received by their pupils. However, further studies and comparisons need to be made in these two fields to see if a significant relationship does exist in a larger sampling.

5. More information is needed on the value of musical experiences for the elementary student. teachers. Since the comparison of ratings of classes and teachers' experience teaching music during practice teaching was close to the .05 level of significance, it would appear that such experience could be made valuable.

6. More study needs to be given to pre-college musical experiences of students anticipating teaching careers.

7. If the development of musical skill in children is desired as one of the goals in classroom music, then more study could be made on the musical activities outside the classroom which are of most value in developing these skills.

8. More study needs to be made of elementary music education. There is much which needs to be learned about all phases of elementary music education.

FOOTNOTES

1. *Official Adjudication Form.* (Washington, D. C.: "National Interscholastic Music Activities Commission," Music Educators National Conference, 1958.)

2. *Standards of Adjudication, A Manual of Suggestions Regarding the Adjudication of Music Competition-Festivals.* (Washington, D. C.: National Interscholastic Music Activities Commission, Music Educators National Conference.)

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CRITIQUE I: CHARLES H. HANSFORD'S STUDY OF GROUP SINGING OF SIXTH GRADERS TAUGHT BY CLASSROOM TEACHERS

Dr. Paul W. Mathews
University of Missouri, Columbia, Mo.

This Research Study of Dr. Charles Hansford is of special concern to those who are interested in the long controversy between educators who feel the need of special teachers of music and other subjects in the elementary schools, and those who believe elementary education is best served if the burden of the classroom teaching in all fields, including music, falls to the classroom teacher, herself.

Fair minded music educators have long seen that there is merit on both sides of the issue, but a large number of the more realistic ones have concluded long ago that, regardless of the merits or demerits of the situation, music will continue to be taught by the regular classroom teachers in a vast number of school systems, and that our obvious problem, therefore, is to improve as much as possible the music instruction by these classroom teachers. Alert and skillful supervision is of tremendous importance, so are pre-service and in-service instruction for the teacher.

This study by Dr. Hansford undertakes to appraise the effectiveness of classroom music teaching by the regular classroom teacher in one selected school system, and to consider the preparation and training of these teachers, largely of a pre-service nature. While the study is a limited one, it is of a kind which is needed. Further similar studies in other locations can render a real service in continuing to appraise the music teaching of the elementary school classroom teachers, and in helping to point the way toward the improvement of this teaching. Dr. Hansford has made a good contribution toward further understanding of the problem.

CRITIQUE III: CHARLES H. HANSFORD'S STUDY OF GROUP SINGING OF SIXTH GRADERS TAUGHT BY CLASSROOM TEACHERS

Dr. Charles R. Hoffer
Director of Music, School District of Clayton

The use of the classroom teacher as the teacher of music in the elementary school is a topic that has been much debated. It is an area much in need of research, and Hansford is to be commended for attempting to clarify the issues involved. His study concerns the singing skills achieved by sixth graders when taught by classroom teachers. Unfortunately, several of the procedures used in the course of his investigation badly dissipate the usefulness of the information obtained.

Essentially the study sought to evaluate the singing of 25 sixth grade classrooms in terms of a five point scale developed by the researcher. It was at this initial stage that the quality of the research began to suffer. It appears that the study became victim of a fallacy common to many pieces of research: the notion that the interpretation of a phenomenon in terms of statistics, even when the relationship between the numbers and the phenomenon is not clarly established, in some mystical way makes for solid data. Of what value is it to know that 25 sixth grade rooms in a certain city sang at a mean rating of 2.8 on a five point scale? Does this tell us that classroom teachers are good (or bad) music teachers? Since the scale is not one in use by the profession, there can be no comparative data from other teaching situations. Then, how does 2.8 compare with the results achieved with the teaching efforts of music specialists, whose work was not studied at all? Should music educators be satisfied with 2.8? No one can tell. Unfortunately the numbers 2.8 out of 5 do not provide much useful information.

Another error in the development of the five point scale concerns objectives and criteria. Initially Hansford speaks about "the criteria of objectives." The two words are not synonymous, as seems to be implied. Perhaps this explains some of the fuzziness about the relationship between the evaluation sheet and the statement of objectives which he cites. What was needed for this study was a carefully worked out set of criteria pertinent to the objectives of the singing experience. Instead of asking adjudicators to comment on pitch in general, and to interpret the comment in terms of a numerical scale, would it not have been better to have all rooms sing the same song and then from each tape to select certain pitches for electronic pitch analysis? When diction was evaluated, would it not have been better to select certain problem places involving diction for discrete adjudication? If this type of investigation had been conducted, specific criteria could have been established that could be related meaningfully to a numerical rating. For example, the song was sung with a mean deviation of x cents from the proper pitch, and the "d" on the word "Lord" was audibly present. These demonstrable aspects of performance would be worth x number of points on the basis of spelled out criteria.

The evaluation sheet, developed to record the appraisal of the seven adjudicators, bears little relation to the objectives formulated by the researcher. The evaluation sheet lists technique, musical accuracy, diction, tone; it resembles strongly the NIMAC forms published by the MENC. The objectives are different. They include "developing the will to sing," building "an acquaintance with a wide variety of song literature," gaining "vocal independence," increasing "the skill in reading music from notation," and having "experience singing with small and large groups." While singing "with increasing understanding" and developing "the skillful use of the singing voice" are two additional objectives cited, it is clear that the research will shed little light on the overall effectiveness of the classroom teacher as a teacher of music.

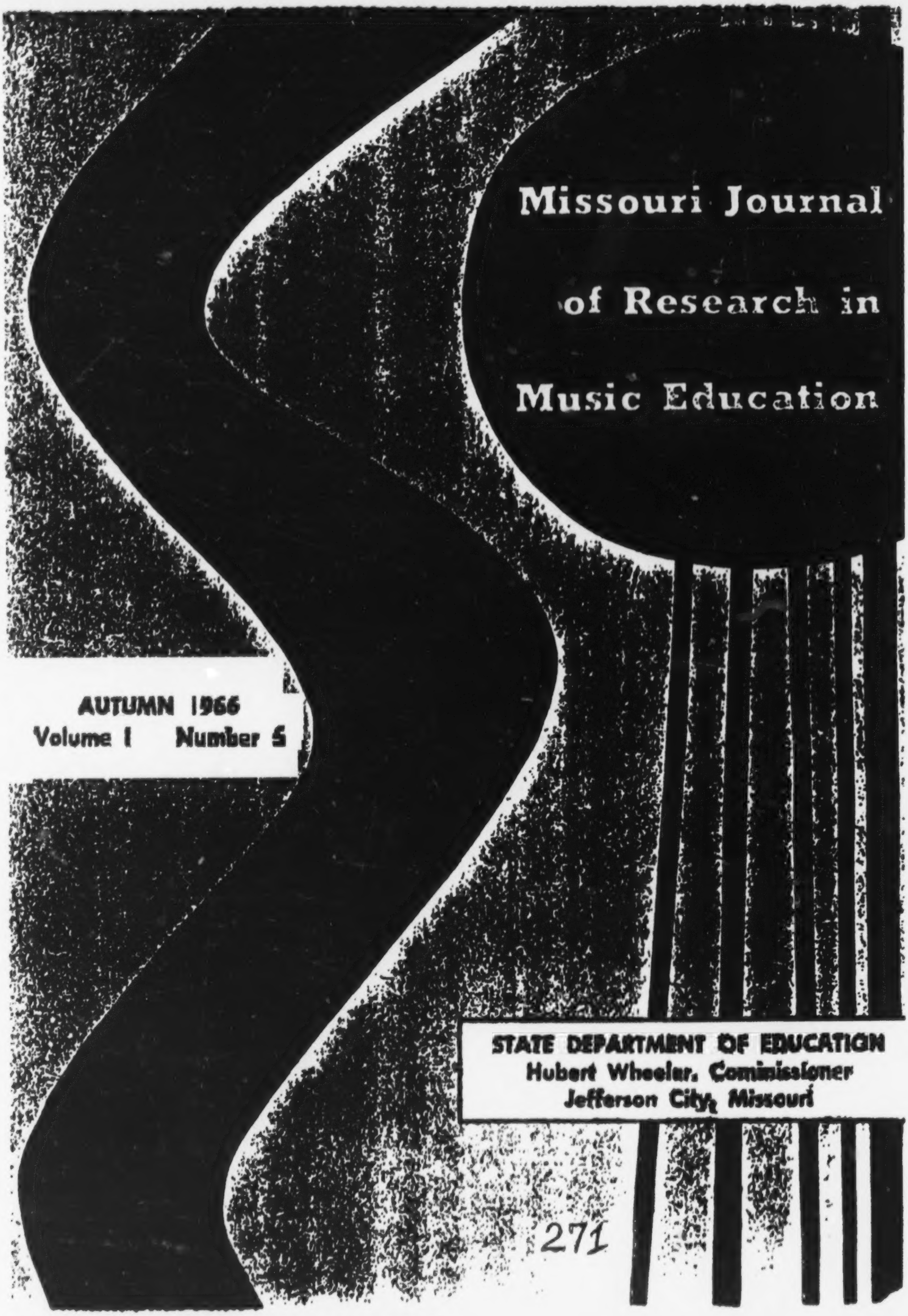
Another serious weakness in the study is the lack of controlled conditions. Granted, in fields that study people and their actions, controlled conditions are impossible to achieve perfectly. This does not, however, excuse a researcher from striving for the maximum degree of control. This study lacked some controls that could have been achieved without undue effort. For one, the 25 classrooms could have sung the same songs for the evaluators to adjudicate. Since the selection of songs for the audition tape was left to each teacher, a variable was introduced that could considerably alter the rating given. Another variable was introduced when the taping was done in different rooms under varying conditions. While the researcher was careful to use the same type of machine and tape, this would hardly compensate for the wide range of acoustical conditions that must have been encountered. Nor was an attempt made to analyze statistically the variations in ratings among the adjudicators. Perhaps the variations were due to the varied selection of songs and to the lack of precise criteria for the adjudicators to use. In any event, the differences in ratings given the same room should have been taken into consideration.

In this study only entire classrooms were studied. Probably for this piece of research this limitation was acceptable. However, before definitive conclusions can be drawn about teaching practices, it would seem necessary to study the actions of individuals in the classroom, even if only on a sample basis. Room X may sing well, but it may do so because a few strong singers are carrying the brunt of the performance, or because the teacher told the shaky singers not to sing at all. The variables are too numerous and too great to stop short of considering individual children. While a far greater effort is required to evaluate individual performance, it is probably the only way that in the end will provide solid data.

The latter portions of Hansford's study do provide some interesting information, even though it must be regarded as being highly tentative for the reasons already indicated in this critique. Most music educators have believed that the elementary music methods course was well worthwhile. It is good to have some reaserch that supports this belief. The usefulness of applied music for the classroom teacher is a point not often brought out. It is one to which music educators in teacher training institutions could give more consideration.

Conclusion 6 is unsupportable. The study did not consider the amount of time spent on music in the classroom, so any mention of this factor cannot be supported by the study. Nor was the background of the children and teachers studied. Since there were no precise performance criteria, it cannot accurately be said "the students performed very well."

The recommendations for further research are, on the whole, good. Some are general and not closely related to the study. Another recommendation might well be added to Hansford's list. That recommendation would be that another study be undertaken appraising the singing of sixth graders taught by classroom teachers and music specialists. This second study would evaluate the singing of groups and individuals on the basis of precise and carefully thought out criteria under highly controlled conditions. Such a study, if properly conducted, would provide the profession with valuable research data, something that Hansford's study in large measure failed to do.



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N. B. All contributors are advised to keep a copy of any manuscript submitted. The Editorial Committee can not be responsible for loss of manuscripts.

PREFACE

The Missouri Journal of Research in Music Education is a publication devoted to the needs and interests of the school and college music teachers of Missouri and of the nation. It is published as a Bulletin of the State Department of Education. Besides the publication of reports of research or experimentation in progress or completed, included are abstracts of theses either completed or in progress, articles of philosophical nature, as well as simple reports on the results of successful musical pedagogy.

Of special interest to high school music educators is the report on ratings in district music festivals by Dr. M. O. Johnson and the critical reactions of officers of the Missouri Music Educators Association.

The proposal by Donald Anderson which would further involve the Missouri Music Educators Association in action research in the schools of Missouri deserves careful consideration by every music educator in the state. Further developments concerning this proposal will be published in *Missouri School Music* as well as in this journal.

Since this publication is not copyrighted, complete articles or excerpts from articles may be made without securing permission from the editor or the authors. It is requested that credit be given to the *Missouri Journal of Research in Music Education.*

Copies of this journal are obtainable without charge from the Missouri State Department of Education.—THE EDITOR

MISSOURI MUSIC EDUCATORS ASSOCIATION
and
ACTION RESEARCH in the SCHOOLS OF MISSOURI

A proposal by DONALD ANDERSON, Brentwood Public Schools

The Missouri Music Educators and the Missouri State Department of Education have much of which to be proud, especially in the field of innovation and research in Music Education. Probably no other state music organizations have done more in this area. However, we suffer from the same syndrome which undoubtedly afflicts all other forty nine states i.e. the college-university vs. elementary-high school schism which ironically perpetuates the pattern of placing all of the responsibility for research in a few institutions of higher learning while effectively keeping it from the only people who can realistically put it to a test and use it, improve upon it, or reject it. To be sure, the *Missouri Journal of Research in Music Education* takes a giant first step in the direction of eliminating this schism, but it obviously is not the complete answer. Relatively few school music teachers read the Journal, and even if when they do, the topics often seem quite remote from their own teaching situations and needs.

To alleviate this situation, the proposal has been made, and approved by the executive board of the Missouri Music Educators Association, that up to five hundred dollars per year be set aside from our treasury which would be available for research grants to help develop better music education programs through the encouragement of Action Research, and curricular innovation, originating in and carried out at the school music level by school music educators.

A committee appointed for this purpose would serve with the present Missouri research committee to screen proposals, offer encouragement and guidance, and award stipends on the successful completion of certain research projects. The results of these projects would be published in the *Missouri Journal for Research in Music Education.* All active members of the MMEA would be eligible to propose projects to the committee for consideration, but schools music teachers would be given first consideration. Subsequently, aid, guidance and encouragement should be given the award recipients in preparing applications from their school districts for government research grants under Title III of the Elementary and Secondary Education Act.

The sequence of the program would be similar to the following brief outline:

1. Survey of proposals for experimental curriculum programs or related research developed by elementary and secondary teachers of Missouri (university teachers not to be ruled out totally) would be evaluated by the committee using the following criteria:

   A. Aims, objectives, and all preliminary data gathered through scientifically organized and carefully conducted procedures.

B. Establishment of the value and need for the proposal.

C. Estimate of the probable success of the initiator in carrying the proposal through to a successful conclusion.

2. Encouragement and guidance offered selected proposals by members of the screening committee or by other persons appointed by the committee.

3. Evaluation of the final report of the initiator on his pilot project.

4. Award to the successful initiators.

5. Publication of results in the *Missouri Journal of Research in Music Education* and other journals.

6. Guidance offered to initiators in seeking Title III grants to follow up and extend their research.

Information on this whole project will apear in the *Missouri School Music* magazine and will be explained and discussed at the MMEA meeting in Cape Girardeau this winter. In the meantime, information about this project can be obtained from the author of this article or the President of MMEA.

Proposed starting date for submmission of projects is April 1, 1967.

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AUTOMATED TEACHING SYSTEM FOR FUNCTIONAL PIANO SKILLS

DONALD ELLINGSON
Evangel College

INTRODUCTION

The private lesson has been a severe economic burden to colleges and universities. In recognition of this problem, leading music educators have conducted experimental projects by grouping students various ways for class piano study. However, the success of class piano teaching has been questioned because not one pianist of prominence has risen from its ranks even though class methods in teaching piano have a history of over one hundred fifty years. The dominant problem of class piano study involved the very nature of music: it is audible. Distractions of sound minimized the efficiencies gained through grouping and pre-class preparations; nevertheless, class teaching techniques have had limited success and their merits demanded further investigation.

Statement of Problem

This study was concerned with the possibility of utilizing economies of class instruction, yet maintaining learning conditions of individual study; specifically with functional piano skills necessary for public school teachers.

Method of Procedure

A survey of literature was conducted to establish terminal behaviors desirable for the learner's long-range objective of becoming a public school teacher. Entering behaviors were evaluated and a curriculum was constructed, using techniques of programed instruction.

Importance of Problem

A preliminary investigation revealed wide discrepancies between those functional piano skills most schools required and skills public school teachers said were important for their profession. Emily Weber reported that out of 244 institutions surveyed, only 58% required music education majors to sight-read a vocal accompaniment of the type found in school music books; only 41% required sight-reading a simple instrumental accompaniment; only 52% required harmonization of melodies at sight using simple chords and styles of accompaniment; only 39% required transposition of easy songs and accompaniments; only 15% required improvisation of music suitable for rhythmic activity.[1] In a survey of public school music teachers, Frederick Freeburne found that 83% of the teachers rated sight-reading, 77% rated improvisation, 66% rated transposition, and 52% rated playing accompaniments as skills of much value.[2] Gillian Buchanan reinforced this observation, finding 64% of all music teachers surveyed "thought their college training in piano did not adequately prepare them for their area in teaching."[3] Such discrepancies indicated that the curricula of many schools were not in keeping with the learners' long-range objectives.

Furthermore, the faculty-student ratio of one to one, required for a private lesson, demands a prohibitive cost unless highly subsidized. This was of particular significance to the small liberal arts college where revenue has been largely determined by tuition.

A closer examination of curriculum was therefore warranted in order to direct it toward more desirable terminal behaviors and investigation of teaching technique was pertinent to explore more efficient methodology.

Method of Instruction

The class method of piano instruction had questionable merit. Most efficiencies gained were minimized by the inevitable cacophony. Victor Landau gave some interesting observations to this point: "In piano classes the several pianos are made to play in unison. The sound thus produced is tolerable only when all the pianos have just been tuned, which is impractical, and all the performers are consistently accurate, which is unrealistic . . . The use of several pianos is, in my opinion educationally unsound."[4]

Landau then gave an interesting approach to group study that would not have the problems of most piano classes: "Piano classes at New Paltz State Teachers College are conducted with several pianos, but they are in separate rooms and used by students working independently. The teacher circulates among the rooms very much in the manner of an art teacher passing from easel to easel."[5]

Landau's system of instruction was unique in that it allowed the economies of class grouping while maintaining instruction at the individual level. Furthermore, supervised practice had been proven to be educationally sound because it involved a constant interaction between the learner and the instructor.

Since this system of instruction was implemented, a more efficient method of independent student study has been developed by the Wurlitzer Piano Company known as the Wurlitzer Music Laboratory. In this laboratory, personal supervision was given by means of a communication center to the students, who practiced on electronic keyboards. Individual study could be maintained by regulating the laboratory communication system for the student to hear only his own efforts. Instructor communication was directed both to the individual and to the group. Economy of space and time could be effected by grouping as many as twenty-four keyboards in one room.

With the facilities of an electronic music laboratory available, consideration was given to the possibility of ordering all instruction on recording tape in the form of audio frames of programed instruction. This involved minute segments of information and instruction to which the learner would interact. Immediately following such learner interaction, a confirmation followed on the tape, producing immediate reinforcement of learning. Therefore an automated teaching system was in effect since the original effort of the instructor was permanently recorded for re-use. The instructor or his assistant subsequently monitored the student's progress by means of the communication center, giving personal assistance when needed.

The Program

A curriculum of two semesters' study was constructed for students whose major was elementary education. The first semester curriculum involved basic keyboard techniques and piano score reading. The second semester was concerned with functional skills a teacher would need for classroom use, namely sight-reading, the ability to accompany, transposition, and improvisation. Both semesters were offered simultaneously, with each class meeting 50 minutes three time a week. The Wurlitzer Music Laboratory (consisting of 12 electronic keyboards, communication center, and an instructor's keyboard) was used in conjunction with a tape recorder. All instruction was given on tape and the curriculum was so ordered that the elements of study were organized into assignments taking from five seconds to one-and-a-half minutes to complete. A constant interaction between the program and the learner produced immediate feedback, causing reinforcement of the learning. A laboratory assistant was used to monitor the students' progress and was available to each student by means of the communication center from which he could direct his instructions to either the individual or to the entire group. About fifteen minutes of each class period were devoted to sight-reading. This phase of the instruction was introduced in the middle of the class period and served as a relief activity complementing the program. Graded sight-reading materials were used as they assisted the student in selecting a proper reading level.

Curriculum for lesson one, semester one (Level A) and semester two (Level B) are presented on pages 9, 10 and 11. Materials described in the curriculum have reference to the text, *Class Piano for Adult Beginners*[6] and the school song book, *Singing Together*[7] which were used in conjunction with the course. The index number indicated the progress of the tape in the recorder. Tape time and class time did not coincide because certain class functions were conducted without tape.

PROGRAMED PIANO

Materials needed: Tape No. FP1A
Class Piano for Adult Beginners

Level: A
Lesson: 1

Index	Tape Time	Class Time	Activity	Page	Curriculum
		0	Open class		
0	0	2	Introduce Laboratory		Introduction to course
0	0	20	Tape on	4	KEYBOARD POSTURE: sit at geographical center of instrument—at edge of bench—elbows free
55	4	24		5	FINGER NUMBERS BLACK KEY RELATIONSHIP: show groups of black keys to introduce middle C
109	8	28		6	ALPHA: right hand, first 4 bars—use metronome—interact with students—1st note—1st 3 notes—1st 2 measures—1st 4 measures

Materials needed: **Tape No. FP1A cont.** **Level: A**
Class Piano for Adult Beginners cont. **Lesson: 1 cont.**

Index	Tape Time	Class Time	Activity	Page	Curriculum
164	11	31			**BETA: interact with student—1st measure—1st 2 measures—1st 4 measures**
198	13	33		7	**REST: interact with student—1st measure—1st 2 measures—1st 4 measures**
224	15	35			**EPSILON: interact with student R.H. section—1st 4 measures**
275	17	37			**ZETA: interact with student R.H. section—1st measure—1st 2 measures—1st 4 measures**
315	20	40			**GAMMA: interact with student—1st measure—1st 2 measures—1st 4 measures**
324	21	41			**DELTA: interact with student—R.H. section—1st measure—1st 2 measures—1st 4 measures**
346	22	42			**EPSILON: L.H.—1st 4 bars—interact with student—1st note—1st 3 notes—1st 5 notes—1st 2 measures—1st 4 measures**
376	23	43		6	**BETA: L.H—interact with student—1st measure—1st 2 measures—1st 4 measures**
400	25	45		6	**ALPHA: L.H. section—change fingering—interact with student—1st measure—1st 2 measures—1st 4 measures**
436	26	46		7	**DELTA: interact with student—1st measure—1st 2 measures—1st 4 measures**
454	27	47			**GAMMA: L.H. section—interact with student—1st measure—1st 2 measures—1st 4 measures**
473	28	48			**ZETA: interact with student—1st measure—1st 2 measures—1st 4 measures**
494	29	49			**REST: L.H. section—interact with student—1st measure—1st 2 measures—1st 4 measures**
515	30	50	Tape off—dismiss class		

PROGRAMED PIANO

Material needed. Tape No. FP1B Level: B
Class Piano for Adult Beginners Lesson: 1

Index	Tape Time	Class Time	Activity	Page	Curriculum
		0	Open class		
0	0	2	Introduce laboratory		**Introduction to course**
58	4	20	Tape on		**MAJOR SCALES: interact with students—play middle C—play chromatic scale to next C—play whole tone scale—count notes—relate major scale concept**
181	9	29		21	**MAJOR SCALES: students read 1st 2 paragraphs**

Material needed: Tape No. FP1B Cont.
Class Piano for Adult Beginners cont.

Level: A
Lesson: 1 cont.

Index	Tape Time	Class Time	Activity	Page	Curriculum
160	11	31			EXERCISE: interact with students
180	12	32		22	MAJOR SCALES: students read page and do exercise
216	15	35			D MAJOR SCALE: explain construction
238	17	37		21-22	MAJOR SCALES: interact with students scales C, G, D—call out scale degrees
290	19	39		24	TRADITIONAL FUN TUNE: interact with students single line—with accompaniment, keys C, G, D
383	23	43			MUSICAL TERMS: explain and refer to pages 14-15
442	26	46			TRADITIONAL FUN TUNE: review in keys of C, G, D
503	29	50	Tape off—dismiss class		

Evaluation

Three piano teachers, each having a minimum of ten years' teaching experience, examined the students after three months' study. First semester students were given a sight-reading examination. Appropriate sight-reading materials were selected by these examiners at the levels of two, four, six, and eight months' study. Of the six students examined, it was the consensus of the examiners that two students read adequately at the eight-month level, one at the six-month level, one at the four-month level, and two at the two-month level.

Materials for improvising and transposing were suggested by the examiners for second semester students. After listening to 12 students perform, and after evaluating the curriculum, it was the judgment of one examiner that the second semester curriculum as evidenced by student progress was equivalent to about three months' private study. Another examiner estimated this to be equivalent to about four months' private study, and the third examiner estimated the progress equal to from four to six months' private study.

The performance of first semester students in examination presented evidence that this program of instruction for Level A was as effective as private study, with an indication that it might be considerably better.

The performance of second semester students in examination presented evidence that this program of instruction for Level B was about as effective as private study with an indication that it might be somewhat better; particularly if more latitude is given to challenge the superior student. Since the piano background of second semester students varied considerably, an accurate evaluation was not possible. Indeed, the only basis for grouping was their inability to transpose and improvise at the keyboard.

The cardinal observation was that students in this program progressed as well and better than students did in private study, even though the monitoring of the program was done by a semiskilled laboratory assistant.

Implications for Further Study

Individual differences both in abilities and previous background have traditionally thwarted any attempts at grouping piano students for study. Even though the Wurlitzer Music Laboratory with individual headsets and programed instruction was available, a pacing of the program was by necessity directed to the average abilities of the class. The superior student was held back, while at the same time the slow learner was frustrated.

Maximum effectiveness of this system of instruction would be implemented with a battery of tapes, each covering a specific unit of study relevant to needs on an individual basis.

FOOTNOTES

[1] Emily Elizabeth Weber, "Minimum Piano Requirements for Music Education Majors: A Comparative Study and Evaluation of Piano Competencies," (unpublished Ph.D. dissertation, Florida State University, 1958), p. 84.

[2] Frederick Glenn Freeburne, "Functional Secondary Piano Training of Music Teachers," (unpublished Ph.D. dissertation, Indiana University, Bloomington, 1952), p. 66.

[3] Gillian Buchanan, "Skills of Piano Performance in the Preparation of Music Educators," *Journal of Research in Music Education*, XII, (Summer, 1964), p. 134.

[4] Victor Landau, "Some Opinions on Piano Class Organization and Pedagogy," *Music Educators Journal*, XXXXI, (February-March, 1955), p. 70.

[5] Landau, p. 71.

[6] Russel N. Squire and Virginia R. Mountney, *Class Piano for Adult Beginners*, (2d ed.; Englewood Cliffs, New Jersey: Prentice-Hall, Inc. 1965).

[7] Lilla Belle Pitts, Mabelle Glenn, Lorrain E. Watters, and Louis G. Wersen, *Singing Together*, (New York: Ginn and Co., 1964).

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GOTTFRIED REICHE

Notes on His Art, Life, Instruments, and Music

DARREL URBAN
Washington University

INTRODUCTION

It is natural that in any area of musical endeavor there appears from time to time a giant of virtuosos, and the pages of music history have been rightly studded with accounts of these all-star musicians. In the art of trumpet playing there stands a man of incontestable repute and renowned virtuosity about whom very little else is known.

It was the original purpose of this paper to merely shed light into the life of this man, Gottfried Rieche, but as I began researching and collecting materials I found myself dealing more and more with his art; namely that of the Clarino or Baroque trumpet. Furthermore, I soon became embroiled in the controversy concerning the instruments used by Reiche and his contemporaries, and with the noble but brief history of these instruments.

Today trumpet playing is still suffering somewhat from the decline which befell its Clarino ancestors with the passing of Bach and Handel. With their demise, the art of trumpet playing plummeted into a sudden decline from which it has never fully recovered, and only recently has the serious repertoire for trumpet begun to be expanded.

In this paper, I hope to acquaint the reader with the rise and fall of this noble trumpet art through the personage of one of its greatest representatives: Gottfried Reiche. Through an understanding of the heights that his instrument and art achieved, the paltry state of its modern counterpart can be better appreciated. Also, for the brass connoisseur this paper will shed much light on one of the greatest representatives of his art, and will serve as a convenient source of information concerning the Baroque trumpet.

GOTTFRIED REICHE:

His Art, Life, Instruments, and Music

Before one can appreciate Gottfried Reiche's place in music and in the art of trumpet-playing it is necessary to have a thorough understanding of the conditions which gave rise to his art and subsequent station in life.

Germany in the Baroque Period

In Baroque time chamber and church music were primarily institutions of the court, and whenever and wherever the court journeyed, musicians formed an indispensible part of the cortège. Chamber music served as a primary source of entertainment, or as background music for pageants, banquets, and various other social occasions. Resulting from the close relationship between church and state, the court musician was also called on to provide music for the official church services.[1]

As members of the courtly household, the musicians were exposed to the repercussions of political life. Very often the treasurer did not know how to pay for the court's victuals, and the musicians, as can be expected, werely usually the first to feel the pinch from periodic lack of money in the treasury. They all too frequently received only a small part of their specified salary or none at all.[2] Over the years the backlog of their unpaid salaries reached sizable proportions. With the Thirty Years' War (1618-1648) the situation for German musicians grew so unbearable that Schutz was forced to write a number of deeply moving petitions on behalf of his completely destitute and starving fellow musicians at the court of Saxony.[3] In a similar manner the supplications of Captain Cooke to Charles II reveal, that in spite or orders to the contrary, no salaries were being paid and that the robes of the chapel boys had become so bedraggled that he steadfastly refused to let the singers appear in public, much to the chagrin of the officials.[4]

Money was not the only form of salary for the Baroque musician, for we find that they were paid in other usable commodities and privileges, such as, exactly specified quantities of wool, wine, and grain. In addition to these staples, musicians were frequently granted, in return for their services, free housing, or even such special prerogatives as a fire (in the winter time) in the assembly hall. It is highly probable that numerous intagibles entered into the computation of salaries; for instance, in Baroque times, employment at the court carried great social prestige, an asset at that time considered well worth the loss of salary it unfortunately entailed.[5]

As we have seen, employment by nobility was the most common position offered to the musician in the Baroque era. However, comparable positions were also offered by collective patrons, notably the free cities which regulated the music life of the burghers and their churches. The organization of musical life was, as a matter of necessity, heavily dependent on the higher classes; the nobility, the clergy, and the wealthy merchants who often went to extremes in emulating nobility.[6] The various forms in which music was heard conformed closely to the strata of society. Aristocratic music addressed an extremely select audience, and only on such representative occasions as entries into cities, welcomes, and public receptions, might courtly music be heard by the local populace. and in most of these cases only incidentally.[7] The church was the primary place where music was readily accessible to the citizenry, and a fine church concert bolstered the reputation of a city as firmly as a famous opera did that of a court.

For this reason the city councils were more than eager to appoint skilled and famous musicians to their available positions.[8]

The music of the middle class was organized in groups of skilled amateurs and music clubs. University students met for music and carousals in the so-called "Collegium musicum." Music for students was an important outlet for a composer's music. Clubs of university students and burghers met periodically for rehearsals to which only members and guests were admitted.[9]

"Germany's greatest asset was the abundance of its musical groups rather than the quality of its musicians, and the fact that the love and practice of music extended throughout the social system . . ." from the highest court to the lowest club, had great ramifications on music in Germany.[10] The numerous musical groups scattered throughout Germany provided much work for conductors, players, and composers. Compared to England or France the abundancy of musical endeavor in Germany becomes apparent. Adam Carse summarized this situation succinctly when he wrote:

> "The decentralization of music in Germany was, of course, all to the advantage of its music, and musicians. Music thrives where there is plenty of it, where it is widely diffused, and where there is opportunity and encouragement for the musician."[11]

Despite the high level of musical activity which existed in Germany, the professional musician and his social position were dependent on a patron of some sort. This dependance on the aristocratic benefactor placed the musician in the servant class. Like bakers and tailors he had to wear livery, and depositions concerning livery were considered cardinal points in all contracts.[12] Even as late as the 18th century many musicians in court and private orchestras in Germany still donned a uniform or livery, and their social status, though ranked above domestic servants, was far beneath that of court officials. Even Wagner, in the late eighteen-forties, had to wear an official court uniform when conducting at Dresden.[13]

With the joint patronage of the churches and cities the Baroque musician enjoyed the same freedom and independence as did the craftsman of the middle class. At times, civic employment in a *prosperous* city carried almost as much social prestige as court employment.[14]

"Guilds"

Like most craftsmen, the professional musicians were organized into guilds, corporations or unions which strictly controlled music education, specified rights, prerogatives, and duties of their members, and saw to it that a consistently high level of musicianship was obtained. A discharge from the corporation because of unworthy musicianship was inviting economic ruin. In Germany guilds of musicians were organized along the same lines as guilds of other craftsmen. Musicians, accordingly, had to pass through the successive stages of apprentice, journeyman, and master. Children who were apprenticed to a master were given room and board. The master taught them his craft at the same time made, all to frequently, much use of them in his household.[15] A complex and rigid system of tests and advancements provided certain shortcuts to higher rank, much in the same way as in musical organizations of our armed services. However certain of these stipulations could be by-passed: for instance, the apprentice could have his journeyman period waived if he married the master's daughter. The succession to certain master positions was directly linked with a marriage clause, and it is not too difficult to imagine the quandary in which the journeyman found himself as a result of this clause. On one hand, a rise of station was a thing to be greatly desired, and on the other, in more cases than not, the master's daughter was not desirable in looks and shape and perhaps did not always fulfill the journeyman's idea of a perfect spouse.

As we have seen, although musical activity was plentiful in Germany, the state of the musician left much to be desired in the way of salary and social position; however, one select group of musicians enjoyed privileges not extended to their counterparts.

This select group was composed of trumpeters and kettledrum players, which were formed into an exclusive guild endowed with special privileges and a salary scale considerably above that of other musicians. Their elevated social position was an outgrowth of the traditional association of trumpets with persons of high social rank. Currently, the rank of leaders of the nation is depicted by the number of firearms sounded in their honor. In the Middle Ages, the number of trumpeters who accompanied the entourage of a European prince or nobleman conveyed, to a certain extent, his degree of importance.[16] The use of trumpets was a distinct attribute of political power and distinguished position, and as a result was always customary at the courts of nobility, and in the important cities and castles.[17] The royal bodyguard of Edward III consisted of seven trumpeters, at the same time seventeen trumpeters commanded respect for Charles II on all occasions.[18] In 1677, the Prince of Orange journeyed form Holland accompanied by five trumpeters. When the Earl of Mulgrave visited Tangier in 1680, two trumpeters were ordered to attend him and signify his rank, and in 1691, seven trumpeters, five oboists, and a kettle-drummer escorted William III to Holland.[19]

H. W. Schwartz writes of this custom:

> "When these dignitaries alighted from their carriage to enter a building, warning of the approach of their excellencies was given by a fanfare of trumpets. When they boarded ship, the gangplank was cleared of common people by a blast from trumpets. Whenever they walked in public thoroughfares, day or night, a flourish of trumpets commanded respect for these dignitaries."[20]

In these times it was also common for drummers to accompany trumpeters in such duties. A roll on the drums and a rousing fanfare were calculated to most certainly arouse the proper respect for royalty. So great was the value of trumpeters that they were given the standing of officers, and were allowed to don the feather of nobility in their caps, and were also provided with horses and grooms.[21] In warfare, a trumpeter retained his officer's standing, even in the exchange of prisoners.[22]

As a result of their high position, these privileged trumpeters never formed a guild of their own, and owing to their knightly character, their profession was not considered a trade, but as Menke puts it, "a free and noble art."[23] The first professional union of these trumpeters occurred as the consequence of a "*privilegium*" granted them by Ferdinand II in 1623. This union was called a *Kameradschaft* and was legally:

> "an association of public character, with the rights of a corporation for the exercise of a profession both military and serving the purpose of art, possessed of a privilege for the whole German Reich excluding others from this profession."[24]

There is no evidence that this union turned their endeavors to artistic ends before the sixteenth century, for not until then do we find evidence of clarin-trumpeters in the service of princes.[25] Before the *Kameradschaft* received its granted privileges, its rights were based on customs, usage, and legal titles. For instance, the trumpeters of Saxony enjoyed the special favor of their high protector, the Arch Marshal. Electoral mandates published in the 17th and 18th centuries provided protection against unauthorized trumpet playing, insuring the strict observance of the privileges bestowed by Ferdinand II, and also provided for an extension of rights in certain particulars.[26]

Developing parallel to the *Kameradschaft* was a civic guild of trumpeters known as the *Stadtpfeifer* or *Stadtmusiker* (town-piper, town musician). The *stadtpfifer* were much lower in social station than the *kameradschaft*, and bitter quarrels ensued between them over their rights. We find the earliest trace of the *stadtpfeifer* in Leipzig, 1749, when that municipality contracted one Master Hans Nagle and sons at a yearly wage of forty guilden and their livery.[27]

It was the duty of the *stadtpfeifer* to play chorales from the church tower in the morning and evening, and to provide music at civic festivities, processions, dances, weddings, garden concerts, funerals, or indeed, for all occasions for which music was required.[28] These town musicians must not be confused with the tower-watchmen whose function was to spot, from their lofty towers, fire, enemies, and other matters of that nature. They also were allowed to sound trumpets. In 1474, the town of Lubeck employed a tower-watchman who had among other duties, to "blow and play the whole year and (sic) every evening on the Claritte (trumpet) as the custom hath been."[29]

The instruments of the *stadtpfeifer* were the trumpet, Zink, and trombone. A silver-gilt shield denoted their office and eligibility to play these instruments. Later, the members of the *stadtpfeifer* were required to be proficient on three or four instruments, both string and wind.[30] The monopoly of the *stadtpfeifer* over civic music affairs did not remain uncontested, and in the 16th century competitors vied for public patronage and jeopardized the *stadtpfeifer's* pecuniary interests. These brash upstarts were known as the "*Feldtpfeifer und Trommelschlager*" (drum and fifers), who had previously fulfilled other duties such as serving as town-criers, and summoning the citizens to military duty.[31]

In 1550, a civic ordinance granted a drummer and his fifer the right to perform at weddings.[32] These *Feldtpfeifers* are not to be confused with the royal *Kameradschaft*, for they were of much lower social station and performed entirely different functions. With the extension musical privileges to the *Feldtpfeifer*, conflict between various rival bodies threatened. Fortunately these differences were settled amicably, and an agreement was reached in 1587. At this time the number of Leipzig *stadtpfeifer* stood fixed at four, and that of their rivals at two pairs of drummers and fifers.[33] These eight musicians divided themselves into four groups, in order to serve in alternation at ceremonies which required their instruments; however, the *stadtpfeifer* were given the exclusive duty of assisting the music in the local churches.[34]

As a result of this schism, the *Feldtpfeifer* succumbed to the vagaries of public taste. In 1595, we find that the town council of Leipzig licenced fiddlers to perform at weddings, and by 1607 there was a definite body of *Stadtgeiger* (town-fiddlers).[35] In 1607, the *Stadtgeiger*, now called *Kunstgeiger*, were permitted to take part in the music of the major

Leipzig churches. This concession permitted the *Kunstgeiger* the right to play only the lesser parts, leaving the important parts to the *stadtpfeifer*.[36]

By the 17th century these two rival factions grew lax in relation to determining over which instruments they had priority, and documents have shown that for half of Bach's period at Leipzig his first violinist was a *stadtpfeifer*.[37]

The social superiority of the *stadtpfeifer* can be seen from the privileges to which they were entitled, and which they enjoyed. Since 1599 the *stadtpfeifer* of Leipzig sounded fanfares from the tower daily. Until 1717 they paid no local taxes. They lived together in a common lodging called the *Stadtpfeifergasslein*. In addition, the *stadtpfeifer's* widow was even permitted to remain a half-year in the *Stadtpfeifergasslein* after her husband's death, not only receiving his official wage, but also half the fees his successor might earn in that period.[38] In their attempts to acquire the privileges of the *stadtpfeifer* the *kunstgeiger* were not greatly successful; however, in 1725 they were granted official lodging at the *Stadtpfeifergasslein*, but were still excluded from affairs of importance which might have added a little more sustenance to their poverty stricken life.[39]

In such a hotbed of musical activity and competition of musical groups, royal and civic, it was natural that tempers flared and bitter feuds developed. The annoying privilege of excluding all but the members of a very exclusive society from the use of a popular instrument (the trumpet) provoked enraged defiance between the *stadtpfeifer*, tower-watchmen, *kameradschaft*, and others. An instance which points out the feverish intensity of these disputes is seen at the end of the 17th century. In Hanover, the Elector's trumpeters are said to have broken into the house of the chief *stadtpfeifer*, with whom they were having a dispute, to have taken his trumpet, on which he was practicing, and knocked out his front teeth with it. Furthermore, these noble *kameraden* contended that they had merely exercised their royal right, and escaped all punishment for their deed.[40]

In the face of such competition for the right of trumpet playing, the requirements of the guild were high and the quality of musicianship which resulted was superb. We have evidence which attests to this fact in the form of a testimonial written by Bach for a musician auditioning for the rank of *stadtpfeifer*. Bach stated that he possessed the ability required on the violin, traverso (flute), trumpet, horn, and other wind instruments.[41] To display proficiency on all of these instruments is a monument to the high degree of skill expected of the *stadtpfeifer*.

However, Arnold Schering in an article in the *Musikgeschicte* cautions us to not take a too romantic view of the *stadtpfeifer*, for the ability to play so many instruments calls to mind the old saying of "jack of all trades, master of none." Also, the *stadtpfeifer* never left his office until completely incapable of performance, whereon, he passed his office to a deputy, who had established a claim to succeed him.[42] It is not hard to imagine the quality of performance delivered by some of the ancient musicians of the *stadtpfeifer* whose steadfastness of talent eventually succumbed to the advances of encroaching old age. The existence of such aged men in the ranks of the *stadtpfeifer* caused Bach to remark that:

> "Discretion forbids me to offer an opinion on their (*stadtpfeifer*) competence and musicianship. I merely observe that some are *emeriti* and others not in such excellent condition as formerly."[43]

The trumpeters of the *stadtpfeifer* cultivated and jealously guarded as their privilege the special technique of clarin-playing, e.g., the act of playing without valves the diatonic scale in the highest register of the trumpet. Much has been written concerning this demanding art in which Gottfried Reiche played an important part, and it would not be undesirable here to explain some of the problems that this art entailed.

The Clarin Trumpet Art

This art is referred to as Clarino (Italian) or Clarin (German). This term is derived from the Latin word *"clarus,"* which means clear, or bright.[44] In early sources the term *clarin* is applied to the highest register of the trumpet which possesses the brightest tone quality. Michael Praetorius writes concerning the clarin trumpet:

> "The trumpet is a magnificent instrument. It is remarkable that in its higher register this instrument affords conjunctly almost all the diatonic tones, and various chromatic tones as well. Thus makes possible the playing of all kinds of melodies on it without the use of slides, by which trombones are regulated. Earlier the trumpet was built to the fundamental tone D, in chamber pitch. Field trumpets have retained this tuning. But a short time ago it became the practice in many court orchestras either to use the trumpet in a lengthened form, or to attach crook tubes to its front, such that the fundamental tone of the instrument was brought a tone lower, to the C *ad modum hypoionicum*—the tuning then being at the choral pitch."[45]

In 1619 he writes that the early clarin trumpeter playing in D was called upon to play from the seventeenth to the twenty-first partial. This tessatura is almost unbelievable. The second clarin player was required to play up to the tenth and eleventh partials, while the third part was written in the middle range of the trumpet, which utilized the third, fourth, fifth, sixth, and eighth partials; the seventh, being flat, was probably little used.[46] As we have seen, Praetorius states that the trumpets of his time (1571-1621) were usually built in D, and that they were of small bore, short in length, and frequently utilized a small, shallow mouthpiece. In this statement he is only partially correct, for it is known that seven and eight foot trumpets were used.[47] Although some authorities, like Praetorius, assume that the clarin trumpeters used short instruments to play the high and florid passages written for them, it has been pointed out that some of this music was unplayable because certain notes delegated to the short trumpet are not found in its diatonic or chromatic compass. H. W. Schwartz writes that the German composer Steffani composed a march, *"I Trienfi del Fato"* (1695), for four trumpets in C, and that many of the notes are diatonic or chromatic. He further contends that they were written over one hundred years before the trumpet was made chromatic through the invention of keys or valves. At that time the only notes available on the trumpet were open notes, such as are found on the bugle.[48]

Since the clarin trumpet produced the natural harmonic series, successively higher notes become increasingly closer together. For example, the second open note lies an octave higher than the first, while the third is a fifth higher than the second. The fourth open note is found a fourth higher than the third, the fifth only a third above the fourth, etc., until between the sixth and the seventh there remains only a half-step. Higher harmonics are separated by even smaller intervals. From this description it is obvious that if diatonic notes are to be played on the clarin trumpet, they must of necessity be played in the highest part of the range where the notes lie close together.

To be able to play parts written by Steffani, it would be imperative for the trumpeter to use an instrument eight feet in length, and which sounds its fundamental "C" two octaves below middle "C". It would then have a natural scale.[49] (See Harmonic Series, Page 48)
With an instrument of this length it is obvious that the following music written by Steffani could be played because the notes necessary for its execution are available in the Clarin range of an eight-foot instrument.

If, as Praetorius states, the instruments used in his time were short, perhaps only four feet long, then they would have their fundamental an octave below middle "C". The resulting natural scale, as shown above, would contain too many gaps and Steffani's music would be unplayable because the required "D" and "F#" are missing in the natural harmonic scale of an instrument of this length.[50] Shorter instruments would have increasingly larger gaps in their natural scale and would be even less adaptable to the execution of this music. As Schwartz points out, this is conclusive proof that some of the trumpets used for the high florid clarin passages were eight-foot trumpets.[51]

Bach's *Tromba*, which was used to fulfill his clarin obbligato* parts meets the specifications of the trumpet just described. This instrument consists of an eight-foot tube bent in three parallel branches, of uniform bore throughout, but expanding in the largest branch to a bell-shaped aperture. This bell is smaller than that found on modern trumpets, and resembles a funnel in many respects.

As Bach and Handel used it, this trumpet differed very little from the trumpets of the fifteenth century. Some examples of this trumpet are still extant, and the majority are pitched in D, however, the fundamental note varies according to the length of tubing of each particular instrument. The Berlin collection of trumpets contains examples in C, D, Db, Eb, F, F♯, and one G. Another in high Ab is in the Heyer collection in Leipzig.[52]

There is no reason to suppose that these high harmonics which were written for the clarin trumpet presented any insurmountable difficulty to the *stadtpfeifer*. Bach's trumpet parts are often written as high as the eighteenth harmonic (d'''), and he asks the C trumpet in

*See supplementary information

cantata No. 31 to rise to the twentieth partial (e'''). Johann Ernst Altenburg thought nothing of pushing the clarin trumpet up to (g''') and even beyond.[53] When one thinks of playing these parts on our modern Bb, C, F, or D trumpets, as unfortunately tried in previous times and at present, the difficulty is all but insurmountable. Even on the old clarin trumpet, the clarin players must have taxed themselves to play these parts.

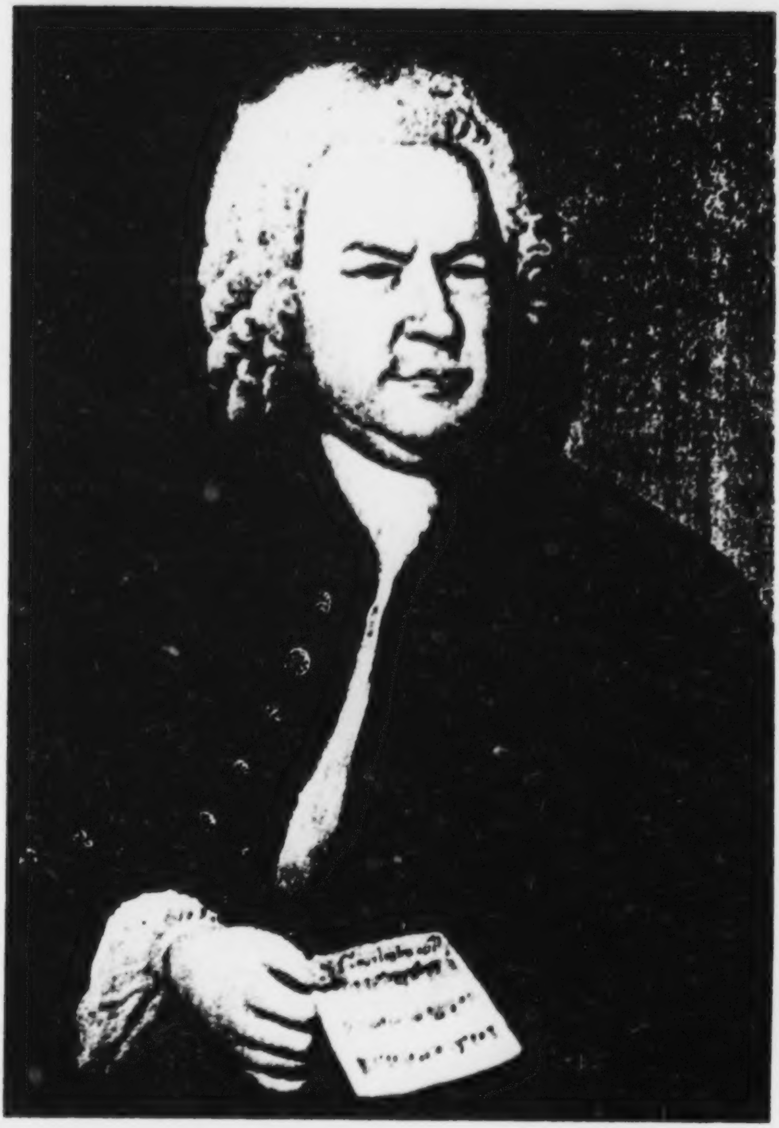
The extended compass required of the clarin trumpet could not be conveniently covered by one instrument, and the players of the different clarin parts were assisted by appropriate mouthpieces (see appendix). The mouthpiece of the Clarin trumpet was normally shallow and saucer shaped, while the principale's (third trumpet) were larger, deeper, and more cupshaped. As a result of this arrangement it was practical and convenient, when a section of trumpets was employed, to assign to each particular trumpeter a specific section of the scale.[54] Thus, Clarin I commanded the range of g' and upwards, while Clarin II, in charge of the octive g'-g'', slightly overlapped it. The principale or third trumpet covered the lower parts in a compass of c-d'.[55]

It is apparent that the high-clarin parts belonged to the realm of the specialists, and that not every one who aspired to play these parts was able.

Daniel Speer remarks in his treatise "Instruction in Musical Art"

> "One finds few private persons who learn this instrument (clarin) the trumpet. Reason, it demands very great bodily powers and is so extremely troublesome to an incipient. That he may come at trumpet-playing the easier, let him from the very beginning accustom himself to set the mouthpiece to the upper lip most exactly and not to his nose or half the lip, for because through this sharp embouchure the lip-flesh is accustomed to swell and so the bowl of the mouthpiece (if the embouchure be so far therein) becomes filled out, and the tongue has no more room; indeed it hinders the breath from coming in; and no matter what the bodily strength, it will finally be tired, because the outgoing of the breath is stopped and it cannot have outlet; thus the right embouchure is the thing of most note in trumpet playing. Above all the incipient shall accustom himself to draw in his cheeks, not blow them out, for this is not only unseemly but hinders breath from having its due outlet and causes man *pain at the temples*, so that true trumpeters are accustomed to box the ears of the pupils to cure them of this habit. Further, for the proper treatment of the instrument are indispensable: (1) healthy physical strength; (2) strong, long continuing breath; (3) a quickly moving tongue; (4) a willing industry in constant practice, whereby the embouchure is conquered and preserved; (5) good, long trills with the chin, which must be therefore accustomed to trembling or shivering."[56]

Johan Ernst Altenburg, previously mentioned, states in his treatise "Attempt at the Introduction to the Heroic-musical Art of the Trumpeters and Kettle Drummers,"



Bach by Haussmann

> "We understand by Clarin or Clarin-part more or less that which among singing voices is called the discant, namely a certain musical melody played in the octave from treble C to C in alt, high and clearly. The right embouchure for the production of this sound is uncommonly difficult to acquire and is not to be defined by fixed rules. Practice must be as best can, although much depends on the formation of the lips."[57]

It is interesting to note that Altenburg makes mention of the fact that Clarin playing could not be gained by one fixed set of rules. He was fully cognizant of the fact that there are as many teaching methods as there are students, and in this respect he was far in advance of some of our so-called trumpet teachers.

As we can see the art of Clarin playing lies more or less in a power of muscular tension in the lips and cheeks. But this power is not possessed by everyone, and hence the playing of the clarin parts was, and still is, a matter for only a few naturally endowed players, and remains closed to all others. It is no small wonder then, that the trumpeters in the *Stadtpfeifers* were a select and socially higher group, for they were, in every sense of the word, specialists.

We have today, an approximate idea of the clarin sound, and only recently have attempts been made by Menke and others, to produce an instrument which would reproduce the original clarin sound. This sound has been described in glowing terms; for instance, Altenburg says, "its tone is penetrating and clear, somewhat shrill in the high notes, but strident in the low register. It rings out above all others, and justifies its title—"Queen of Instruments."[58]

Altenburg also says of his father,

> "His tone in Clarin-playing and different modifications of the same, which he understood how to combine singingly and flowingly, his facility in the high and low registers, his expression of the different manners and his utterance were, be it spoken without vanity, artless and singular. Clarin-playing was not at all difficult to him and he could play so softly that one could scarcely hear it, yet that so each tone was clearly distinguishable."[59]

Further accounts of clarin tone are given to us in a description of the tone of Johann Carie, one of the last great clarinists who was playing in his 64th year with a

> "Youth's tender expression, and at another time, he makes his trumpet ring out with fire of the same."

We find another comment on him which points out his tremendous control,

> "Besides the evenness of his notes which (preserving all their fullness and roundness) he can subdue his sound to the softest flute-like whisper."[60]

John Walter, in his Dictionary of Musicians, mentioned that he knew a member of the Erfurt Council Band, who was able to "warble on the trumpet up to C in altissimo and beyond, like a robin redbreast."[61]

The Function of the Clarin Trumpet Under Bach

In Bach's hands, the trumpet is given special care and treatment as a solo instrument, and under his direction the Baroque trumpet rose in stature to a height which has never again been emulated.

Bach recognized that by the very nature of its tone the trumpet was capable of being a solo instrument.[62] The brilliance of tone, the dynamic power, and the militant sound has always moved listeners. It is also capable of producing the softest lyrical melody, and in contrast give forth the most energetic and soul stirring fanfare imaginable.

Through the use of the clarin trumpet, Bach added festive brilliance to the rest of his musical ensembles. Bach was fond of employing them in high festivals if the text permitted, and he frequently made use of any pretext in the text to introduce trumpets.[63] As Menke puts it,

> "When the voices sing of praise and glory, they are generally joined by the trumpets and drums—heightening the brilliance with overpowering effect."[64]

Bach frequently used more than one trumpet, and when he employed two he wrote in the traditional idiom of the instrument. In a number of cantatas he specifies Clarino I and Clarino II; when writing for three trumpets he designates the third "principale."

Bach used four trumpets in the Council Election cantata, "Preise Jerusalem" (1730) and in the Christmas cantata "Christen atzet diesen Tag in Metall und Marmelstein" (1723); three in "Phoebus und Pan."[65] However, when writing for festive occasions Bach generally used only three trumpets.

Characteristic of Bach's use of the trumpet when appropriate to the text is cantata No. 128 in which the bass aria proclaims the risen Christ:

Up, up, ye trumpets call!
Tell forth one and all,
Jesus on high is throned![66]

Charles Stanford Terry writes of Bach's ability in employing the trumpet,

> "As a vehicle of praise the trumpet is also much used by Bach, as though he borrowed from the angels the inspired instrument of their adoration."[67]

In Bach's cantata No. 51 the trumpet rings out to the text of:

Praise ye God, all men, adore Him!
Heaven and earth, his praises sing![68]

The trumpet is heard in his Christmas Oratorio in conjunction with the text:

Mighty Lord and King Supernal![69]

In Bach's cantata No. 5, the trumpet is aroused to fury by the words:

Disperse, ye Lords of hell!
I mock your proudest might![70]

The trumpet sounds again in cantata No. 90 to the words:

In anger and fury the Judge will avenge Him,[71] These are but a few examples of places where Bach used the clarin trumpet to add brilliance and power to his text. From these examples we can draw the obvious conclusion reached by Terry:

> Bach's trumpet is never irrelevant, never purely orchestral, but the expression of a definite mood, a detail in a picture keenly visualized.[72]

As we have seen, the clarin trumpet art reached its peak under the guiding hand of Bach. Never before had the trumpet been called on to produce so many prodigious feats of bravado, and yet be capable of sounding as softly as a flute, and blending with the human voice. Handel sustained Bach's manner of writing for the trumpet, but his trumpet never quite equalled that of Bach.[73] The men for whom Bach wrote his trumpet parts were, of course, the *Stadtpfeifer*. Of these excellent men, one stands out above all others in reputation and virtuosity. This man, Gottfried Reiche, entered the musical scene at a time ripe with potentiality for the trumpeter, and he rose to meet the occasion. It is safe to say that with Reiche the art of Clarin playing reached its culmination, and the combination of Reiche's technique and Bach's writing has left us a wealth of brass music, the like of which has never been equalled.

Gottfried Reiche

Gottfried Reiche was born February 5, 1667 in the Saxon town of Weissenfels. We find no further trace of him until 1688, when he arrived in Leipzig at the age of twenty-one to become a journeyman *stadtpfeifer*.[74] Reiche's talent gained him quick acceptance among the civic musicians, for in 1691 an entry in the records of the Leipzig treasury notes the payment of 3 fl. 9 gr. to Reiche for service as a trumpeter in the local churches.[75]

The scope of his talent was so extraordinary that during the period of public mourning imposed on all of Saxony after the death of Elector Johann Georg IV in 1694 the city of Leipzig presented Reiche with a special bonus in return for his assurances that he would not be tempted to seek employment elsewhere.[76] This is entirely in keeping with the practice of the towns to go all out, so to speak, in acquiring the very best musicians possible, in order to uphold their music reputation. Unfortunately periods of mourning were a frequent occurrence, and were always in force after general plagues or deaths in the nobility.[77]

To insure a proper air of lament during these mourning periods all public festivities and merriment were forbidden. Unfortunately, included among these banned activities were the larger weddings which served as the *stadtpfeifer's* principal source of income.[78] Thus, these barren times worked great hardship and deprivation among the *Stadtpfeifer*, for not every member was blessed with Reiche's talents and a subsidy of any type was a rarity. They were often required to endure these unbearable situations for months or even a full year, as was the case in 1694. This situation caused Kuhnau, Bach's predecessor at Leipzig, to bitterly remark,

> "Nobody will pray more devoutly for the long life of his sovereign than the instrumentalists."[79]

It is interesting to note that the *kunstgeiger*, who constantly complained that the *stadtpfeifer* had all the privileges while they had none, endured these periods of hardship with relative ease; for although the larger and more elaborate weddings were strictly forbidden, the insignificant "fiddle weddings" were permitted if granted special electoral permission.[80]

In 1696 Reiche wrote forty compositions to be used as tower-music by the musicians of the *stadtpfeifer*.[81] In an introduction which accompanies twenty-four later compositions (Neue Quatricinia), Reiche remarks of his earlier compositions,

> "I have already written forty five-part Sonatas for the musicians here in Leipzig, which whom I have now associated for eight years . . ."[82]

From this comment it is apparent that Reiche was on good terms with the Leipzig *stadtpfeifer*, though we cannot yet be sure that he was actually in the general employment of the city as a performing musician at that time.[83]

It is a monument to the power and rigidity of the guilds of this period (early-middle Baroque) that even a man of Reiche's talents was unable to advance from his rank of journeyman *stadtpfeifer* to an official position among the city musicians of Leipzig until 1700, and even then only to replace Johann Christian Beyer as a mere violinist.[84] It was not until six years later, in 1706, that Reiche was able to become a full-fledged member of the *stadtpfeifer*.[85] It is interesting to note that the time interval between Reiche's arrival at Leipzig, and his subsequent acceptance into the *stadtpfeifer*, spanned eighteen years! It is evident that Reiche did not take any short cuts available to the rank of *stadtpfeifer*. (perhaps the daughter of Gentzmer ((senior *stadtpfeifer*)) is the reason) but one can only speculate why a man of Reiche's talent should wait so long to reap his just rewards.

In 1723, Bach was appointed Cantor at the *Thomaskirche* in Leipzig.[86] On arrival he immediately took charge of the instrumentalists which had served Kuhnau his predecessor. They numbered at that time four *stadtpfeifer*, three *kunstgeiger*, and a single apprentice—all led by Reiche who had risen to the rank of senior *stadtpfeifer* after the death of Christian Gentzmer in 1719.[87]

These eight talented musicians formed the hard core of Bach's orchestra, and were augmented by amateurs recruited from the *Thomasschule*.[88] Both alumni and students participated in Bach's endeavors, but the quality of their talent was questionable. Even the *stadtpfeifer* were not above Bach's scrutiny and suspicion. That these musicians were not always adequate to the task at hand is indicated in Bach's memorandum to the Leipzig town council in 1730, previously mentioned, in which he states, "some of them are *emeriti* and others are not in such excellent condition as formerly."[89]

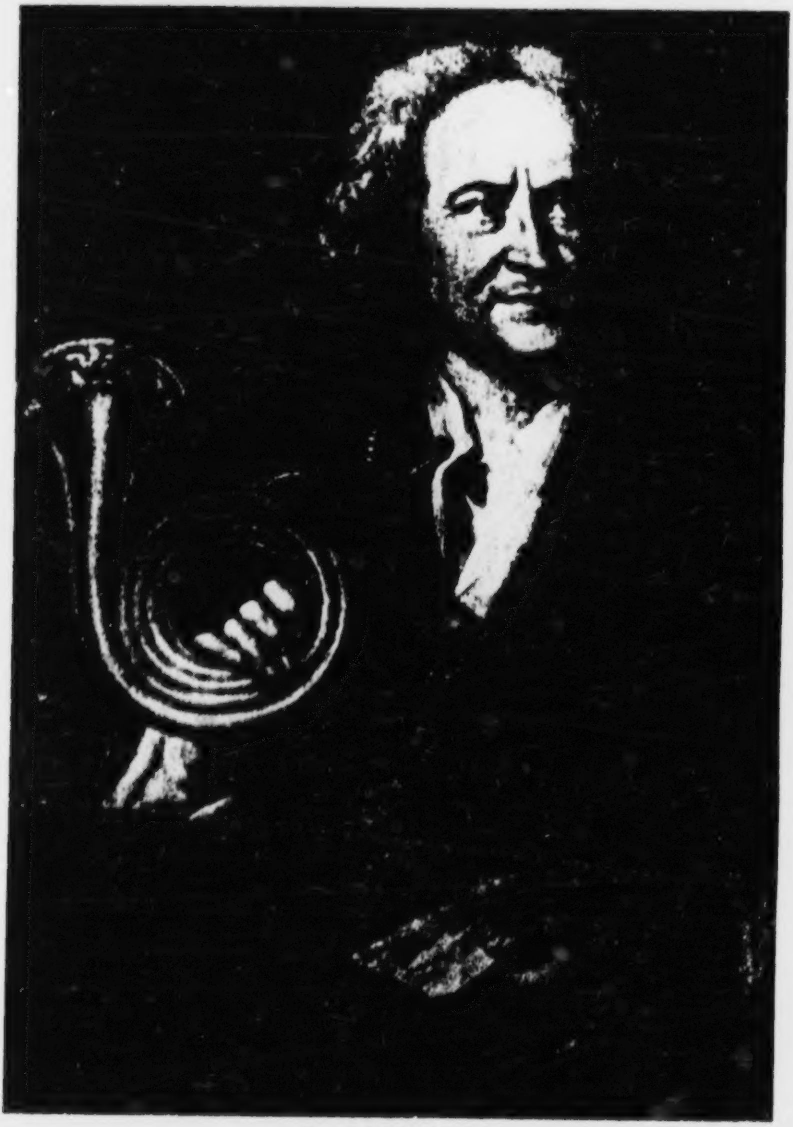
A *stadtpfeifer* held his position for life, and during the 18th century the average tenure for *stadtpfeifer* and *kunstgeiger* was over thirty-three years.[90] This situation was probably common to most German cities. It is small wonder that Bach complained of the declining quality of the performances rendered by the aged, decrepit old men of the *stadtpfeifer* and *kunstgeiger*. However, it is possible that he was thinking of Reiche when he wrote that some of them were "*emeriti*" (of merit). His talent was certainly deserving of the highest praise.

We find further documentation of Reiche's talents in the court paper of Leipzig.[91] For we learn that Reiche left his successor Johann Casper Gleditsch 122 "*Abblase-Stucken*" (tower music) for several instruments and five books of chorales, apparently in his own settings.[92] In 1748 Johann Cornelius Gentzmer, Gleditsch's successor, recommended that the town council purchase Reiche's music and instruments because as he remarks, "they are indeed worthwhile."[93] He speaks further of a trumpet which was found in the city wall (fortification) after it was cleared, whereon, the name of Hans Gummelmann was engraved.[94] After this discovery, a man by the name of Hochweifer attached to the trumpet a blue and yellow binding tassel.[95] Hochweifer's gesture was prompted by the fact that the instrument at one time had been in the possession of Reiche who had taken it from city hall, and that these were the colors which were attached to it at the time.[96]

The construction of this instrument was said to have pleased Reiche very much, and that he grew quite fond of the technique he achieved on it.[97] We are perhaps dealing here with an instrument left by the Swedes when they were in Leipzig in the year 1707. The colors of the binding tassel (blue and yellow) are a clue to this origin (colors of Sweden), plus the fact the only the *stadtpfeifer* trumpeters possessed their own instruments; the other instruments of the guild being kept at the city hall when not in use.[98] If this be the case, the appearance of a trumpet not belonging to anyone, is a highly unusual occurrence, for it will be remembered that a trumpet was a much sought after instrument. It is reasonable to assume that the instrument was left by the Swedes during their departure in 1708. It follows that Reiche, who was first trumpet among the *stadtpfeifer* at that time, took charge of the instrument.

Reiche's name is mentioned again in the never ceasing fight between the *stadtpfeifer* and *kunstgeiger* in the coming years, however, not in personal terms, but in general affairs of the guild.[99]

In November of 1713 Reiche became ill, and this caused him to contemplate his eventual demise. Therefore, he asked, on November 14th, the royal notary Hunneberger, besides three other *stadtpfeifers* (Rother, Cornel, Cornelius Gentzmer) and *Kunstgeigers* (Beyer, Gleditsch, Ranagel, plus a theology student Wetzel), to witness his will and to sign and seal it. One-half of his estate was to go to his sister Ava Maria Senffarthin, born a Reiche, and her husband Adam, a shoemaker. The other half was to go to the six children of his deceased brother Johann Paul Reiche, former pastor of Kirchscheidungen.[100] On December 3rd, 1732, a similar case of illness prompted Reiche to give his testament to the city courts.[101] On November 3rd, 1734 four weeks after his passing, the will was presented to the representatives of his heirs.[102] Reiche also left at his death a tromba da tiarsi and a Waldhorn (see appendix), unfortunately they are not extant.[103] These records compose the extent of what is definitely known about Reiche's personal life, however, we are left with a testimonial which clearly points out the astounding achievements of this man.



Gottfried Reiche

(From the portrait by E. G. Haussmann)

In Reiche's case, the old saying that "a picture is worth a thousand words" is correct, for we find that the town council of Leipzig commissioned the artist E. G. Haussmann (who later painted a famous portrait of J. S. Bach) to paint a portrait of Reiche in order to honor its devoted servant publicly on his sixtieth birthday.[104]

Considering the countless numbers of performers which existed in Reiche's time, and which were of some merit, the mere fact that such a portrait exists testifies to the extraordinarily high position Reiche held in the public and musical life of Leipzig.

Arnold Schering writes of this gesture:

> "We can scarcely believe that he (Reiche) was the originator of the idea of having his portrait made, any more than it was in the case of Bach later on, but rather that the council of the city asked that it might be allowed to reward its faithful servant in this way. It was not possible to pay him more money or to give him any other kind of pecuniary remuneration, because this would have made his colleagues among the *stadtpfeifer* angry and possibly jealous—later developing a split among the *stadtpfeifers*.[105]

The picture was presented to Reiche in 1727, and shortly thereafter, a copper engraving was made of the portrait by C. F. Rosbach.[106] Schering writes further concerning the picture:

> "Even though the reproduction of the oil painting was done accurately and artistically it does not by any means do justice to the lively original which we find in the city library of Leipzig. When we look at the picture we can see that it was done with greater love than that of the engraving or Haussmann's later portrait of Bach. For instance, if you compare both portraits it appears that the oil painting of Reiche was done technically more carefully than that of the Bach portrait.
>
> The picture has darkened somewhat, but it is still in excellent condition, and one can see the strong features of the soft part of the face, done in a shiny flesh color. Strength is especially apparent in the face, neck, and hands. The upper lip is shaved smoothly. The wig does not, as in Bach's portrait, consist of small curls, but is a fine light powdered hair which seems to have natural waves (see appendix).
>
> His fine free glance, showing of kindness is turned to the left side of the picture. The rings under his eyes suggest many sufferings and exertions.
>
> Over the fur lapeled coat we see another coat in dark cherry red. The linen shirt is open, and the light blue band shows through. You can also see the neck and breast. We cannot really call this a gentleman's way of dressing, but in this case it made it easier for him to play, and this was the reason for it.
>
> The picture also hints at the congenial way of life which existed in Leipzig at the time of this picture.
>
> The color of the instrument, a light gray, does not point

> out that it might be brass. Only the darkened part of the bell shows a shine or reddish golden hue, and this is decorated with ornaments.
>
> All in all, this picture shows the character and nobleness of this man in the best light."[107]

The author feels that Schering's description, though accurate, is not sufficient evidence for the conclusions he draws; however, it presents the reader with an interesting insight into the importance of this man.

Reiche's fame and prowess were further documented in J. Mattheson's *"Ehren-Pforte,"* for it was Reiche and not Bach whom he honored with an entry in his dictionary. It reads,

> "Gottfried Reiche, a worthy town musician in Leipzig and senior member of the group there, was born in Weissenfels on Feb. 5, 1667; and in 1696 printed twenty-four new Quantricinia for a cornett and three trombones. His portrait which was painted by Hausmann in 1727 and engraved by Rosbach, resembles an honest man as closely as one drop of water resembles another. It bears the inscription "Gottfried Reiche Leucopetramisnicus, natus d. 5. Febr. MDCLXVII—Musicorum Senatus Lipsiensis Senior."[108]

The remainder of any information about Reiche is of a more trivial sort, however, it gives some small insight into the personality of Reiche, and it is, therefore not undesirable to give it here, meager though it is.

He was known to be a jolly and physically powerful man of good disposition.[109] As his picture shows he was strong and virile, and it is known that on concert tours he travelled in open air, on horseback.[110] His embouchure was supposedly remarkable and highly developed; his picture attests to this fact somewhat. From Spitta's "Johann Sebastian Bach" we find that the church records prove he remained unmarried.[111]

Like trumpeter Maynard Ferguson, it is likely that Reiche's talents as a trumpet player made him a living legend in his own time. It is strange that the tragic death of Reiche should also serve to heighten and mystify this legend, but so it has.

In October, 1734, Friedrich Augustus II, Elector of Saxony decided to allow the Leipzig citizenry to celebrate the first anniversary of his succession, as Augustus III, to the throne of Poland.[112] Thus, on October 6th, 1734 over six hundred torch-bearing students from the university assembled in the *Marketplatz* to provide light for Bach's *Collegium Musicum*, which honored the elector with a performance of Bach's *Abendmusik "Preise dein Gluck, gesegnetes Sachsen"* (Praise your Fortune, blessed Saxony).[113] Judging from all accounts it was a gay and impressive event. The cantata was naturally presented under the corporation of the *stadtpfeifer*, among them senior Reiche on first trumpet.[114] This party exhausted the sixty-seven year old trumpeter, and as a result he collapsed in the street in front of the *Stadtpfeifergasslein*.[115] Reimer in his manuscript chronicle of 1734 penned the following entry:

> "On October 6th the skilled and experienced musician and *stadtpfeifer*, Gottfried Reiche, Leucopetra-Misn. and senior

> member of the local musicians' guild suffered a stroke not far from his lodging in the *Stadtpfeifergasschen*, as he was on his way home, so that he collapsed and was brought dead into his house. And this is said to have occurred because on the previous day he had been greatly fatigued by playing in the royal music and had suffered greatly from the smoke of the torches."[116]

Spitta says of Reiche:

> "He died in 1734, unmarried, in the *Stadtpfeifergasschen*, whither, he was carried home struck by an apoplexy and lay there from Oct. 6 until he died (Register at Leipzig), and his funeral was followed by the larger half of the school (university and music guilds)"[117]

That Reiche's death was caused by smoke inhalation is debatable, for W. F. H. Blandford has commented:

> "Though trumpet playing was the approximate cause of his death, it did no more than pull the trigger. The real cause, no doubt, was a stroke due to high blood pressure—a condition brought about by factors other than trumpet playing."[118]

It is highly unlikely that smoke inhalation of any kind could cause high blood pressure, and Spitta's use of "apoplexy," points rather to a cerebral hemorrhage as cause of his death. Furthermore, the fumes from torches, usually made of twisted flax soaked with tallow, could have hardly affected Reiche since the concert was given in the open air in the market place; better ventilation could not be asked for.

It is possible, however, that the exertion required to play the trumpet part in the cantata strained the old and ailing Reiche to the breaking point. Records of trumpet players passing out from exertion are numerous, and in the writer's own personal findings these records have been borne out. In personally talking to high register specialists the subject has, indeed, come up often. Dalton Smith, reputed to be one of the best and most powerful big band lead trumpeters to have ever existed, remarked that frequently when fatigued he would pass out after playing in the extreme part of this range, and that this had happened in actual performances. Perhaps the best clue to the cause of Reiche's death is the actual trumpet part in Bach's canata. (See "1st Trumpet part from "Preise dein Gluck" 1734, page 48)

Upon looking at this part, it must be said that unnaturally high difficulties are not to be found, and this passage certainly could not have offered great problems to the masterful skill of Reiche.

The most difficult point of this passage is at the entrance of the first chorus where the ascent to high "E" occurs immediately. Perhaps if not properly warmed-up, Reiche had to strain himself to play the passage; however, this is extremely unlikely for a man of Reiche's talent. This passage again occurs in the final chorus in the orchestral tutti, which lasts for sixteen bars. To play this passage over the full orchestra, out of doors, and in one breath, might have strained Reiche, but there is no reason for exertion of this type, since Bach always allowed time to take sufficient breath and to empty water out of the horns.[119] Even if Reiche played the passage in one breath and at full power it should have posed no difficulties to him. In the portrait by Haussmann, Reiche is shown holding a piece of music on which appears the trumpet fanfare given on page 23.

It was the custom in Reiche's time for a craftsman, of any type, to try to show his position, skill or craft, with insignias of his guild, or to demonstrate in some other way his prowess in his art when portrayed in a painting.[120] This type of presentation allowed the observer, at first glance, to recognize the special talents of the subject and to give them special attention.[121] For this reason, Bach, in the picture by Haussmann, holds a piece of his favorite cantata in one hand, and a sheet of music with a six-part canon representing his skill at counterpoint, in the other. In view of this, Reiche's allegro fanfare meant more than a piece for a trumpeter, which any apprentice could have struggled through. Even though a clear presentation of the fanfare would be remarkable, the difficulties encountered when it is played in one breath, at a fast tempo, on a high transposing instrument, would make the rendering of this passage a virtuoso feat of feats. Surely no one at this time could have matched this type of virtuosity. Considering the difficulties encountered in playing the diatonic passages clearly, in the third and highest octave, under the conditions stated above, Reiche's masterful skill is certainly put in the limelight, and anyone looking at his portrait would take immediate note of it. This seems to be the real sense of the music held by Reiche.

Comparing this allegro passage to the one in the cantata, which supposedly was Reiche's undoing, we see that the cantata passage seems almost trivial beside it. From this, I conclude that Reiche died of infirmities developed in old age, rather than by overexertion caused by trumpet playing. However, the popular notion that he sacrificed himself to the art he dearly loved will probably outlast this bit of sleuthing, and possibly rightly so.

In the discussion of Reiche's clarin art it will be well to remember that this type of performance was done on a natural trumpet usually pitched in D. It is known that Reiche, at one time or another, was in possession of an instrument of this type; as evidenced by the aforementioned Swedish trumpet. However, being a *stadtpfeifer*, Reiche, as a matter of course, possessed versatility on many instruments, in keeping with the practices of his guild.

Instruments

As mentioned previously, Reiche left at the time of his death a *Zugtrompete* and a *Waldhorn*. It is likely that Reiche was also highly proficient on these instruments. These instruments will be taken up in later discussion. However, of more immediate concern, is Haussmann's portrait of Reiche, which poses yet another problem concerning the number and type of instruments on which Reiche was accomplished.

Jagertrompete

In the portrait of Reiche, by Haussmann, Reiche holds in his right hand a curious looking coiled instrument, which does not at all conform to our idea of the Bach or Baroque trumpet. This fact calls for investigation, for it is highly unreasonable that Reiche would have allowed himself to be painted holding an instrument he did not use. Rather, it is more probable that he would have desired to be portrayed holding the instrument he loved best. If this be the case, the popular notion concerning this unusual instrument is false. This view, holds that the instrument is coiled simply as a convenient means by which Haussmann could include the entirety of Reiche's instrument in the portrait; it will be remembered that the natural trumpet at that time was an eight foot tube rolled in three parallel branches, and in this form was usually from fifty-one to fifty-six inches long. Concerning Reiche's death and the instrument in question, Professor Arnold Schering writes:

> "The case allows us to draw two valuable conclusions. First: that Bach's trumpet parts were not performed without difficulties even by the best players of the time. The second concerns the character of these trumpet parts. As is well known, that posthorn-like instrument, with five great curves and a round crook for insertion, with which Reiche appears in Haussmann's picture, provides a problem of instrumental lore capable of various solutions, for the instrument corresponds neither to the old, nor to our idea of "Trumpet" or "Clarin." Judging by its curved form it belongs to the horn family, while the kettle-shaped mouthpiece (with its five contracting rolls) places it among the trumpets. We may regard the latter point as decisive for the tone-quality and treatment."[122]

Schering writes further:

> "We may suppose that the instrument was not in C, but a transposing one, perhaps in high F such as Bach asks for in his Second Brandenburg Concerto."[123]

Schering's assumption that Reiche's coiled trumpet, (held by Reiche in his portrait) is in F, is as Mary Rasmunsen puts it "typical of his often wishful thinking."* W. F. H. Blandford and Isamu Hirabayashi have calculated that it was in D with a C crook, and Charles Standford Terry accepted their supposition.[124]

Evidence of the existence of trumpets wound in the circular form usually associated with the French horn, appears at intervals from early in the 17th century to the 19th. Such an instrument is depicted by Praetorius; it is provided with a crook, and is named Jagertrummet.[125] Werner Menke, of Leipzig, presents, in his "History of the Trumpet of Bach and Handel," a photograph of a Jagertrompete in D made by Heinrich Pfeifer of Leipzig in 1697, which was preserved in the Grassi Museum of Leipzig University until after the second World War and which bears close resemblance to the instrument held by Reiche. In 1695 the town of Leipzig is known to have purchased trumpets from Pfeifer.[126] At this time Saxony had just completed an extended period of mourning (one year) during which they had paid Reiche to stay on as trumpeter even though he was not allowed to play. It is possible that one of these trumpets was intended for Reiche as a partial payment for his allegiance. Even if this was not the case, Reiche probably fell heir to one of these instruments on becoming first trumpet of the *stadtpfeifer*. At any rate, the instrument in the Grassi collection may well be the same as, or very similar to, the one used by Reiche.

While it is possible that these trumpets were compactly coiled for the sake of handiness and portability, it is more probable that they were formed in this manner to enable the player to place his right hand into the mouth of the bell of the instrument. This technique, called "stopping," was an attempt made by early brass players to make their natural instruments chromatic. This device was successfully applied to the French horn in 1750 by Anton Josef Hampel; however, there is nothing that indicates that it had been used successfully before that time.[127] Interesting in this respect is an attempt by Fantini, a Tuscan court trumpeter, of about 1600, to adapt what Praetorius calls the Jagertrummet to playing a chromatic scale.[128] Fantini supposedly was able to play the chromatic scale clearly and purely by means of moving his right hand in and out of the bell of the trumpet (Stopping?)[129] Unfortunately it is not known in which register Fantini performed this feat. It is likely however, that if it worked at all he used the upper register of the instrument to take advantage of its diatonic character.

Of the Jagertrompete held by Reiche, Werner Menke writes:

> "The instrument must be classified as a trumpet not only on account of the mouthpiece, but above all because the tube is purely cylindrical up to the last curve and only then becomes conical; whereas the shape of the horn was already at that time quite conical, even though (for technical constructional reasons) the conical form appears rather like the cylindrical shape of the trumpet. The curves which differentiate this particular instrument from the straight trumpet shape are, in my opinion, intended to make possible "stopping." Even with Praetorius the idea "Clarin" was no longer connected with one distinct instrument; it only denoted the height of sounds and register."[130]

From this account it appears that the trumpet which Reiche holds in his portrait is really a clarin trumpet despite its unusual shape. Menke, on examining the instrument in the Grassi collection, stated that in his opinion this particular trumpet had the fullest and softest sound of any clarin trumpet he had tried, and concluded that this was so because the evenly distributed curving of the instrument influences the propagation of sound-waves less irregularly than does the shape of the natural trumpet with its sharper but lesser curving.[131] The author agrees with this opinion, but there is no acoustical evidence to verify this assumption. Menke further points out that straight tubes, without any sort of curves, give genuine, characteristic trumpet-tone. He then postulates that the evenness of rounding produces the same effect.[132] If this is true, it is good reason for this trumpet to be Reiche's favorite.

Tromba da tirarsi

Some controversy envelopes the origin and use of the *tromba da tirarsi* (trumpet to be pulled out), or better known as the *Zugtrompete*.

It is of no small interest the Reiche possessed one of these instruments. A painting by Antonio Vivarini of the Three Magi (fifteenth century) depicts a trumpeter carrying his trumpet and mouthpiece separately.[133] The shank of the mouthpiece, which is inserted in the lead-pipe of the instrument, is not of the usual length of one or two inches, but approximately ten inches long.[134] Such an unusual shank may have served to adjust the pitch of the instrument, but it is also plausible that is served to complete the natural scale of harmonics, by being pulled in and out while played. This trumpet is but another attempt at giving the natural trumpet a chromatic compass. An unmistakable slide trumpet, made at Naumburg in Saxony in 1651 by Hans Viet was preserved unimpaired in the Berlin Instrumental Museum; however, it, like the Pfeifer Jagertrompete, was destroyed during World War II. Coiled in form, it can be distinguished from other clarin trumpets of that time only by extraordinary length of the shank of the mouthpiece. It was found that by gradually moving the shank, the gaps that existed in the scale of the natural trumpet could be filled, thus achieving a true chromatic compass.[135]

Altenburg wrote of the Zugtrompete in 1795:

> "The Zugtrompete, generally used for playing the Chorals from church towers,—a significant detail—resembles the alto trombone, since during the act of blowing, its slide-action conveniently produces the lacking harmonics."[136]

This description is not exactly accurate, for the moving mechanism of the Zugtrompete does not function in the same manner as the slide of the trombone. In the case of the single Zugtrompete previously extant, it is the body of the instrument which moves over the shank of the mouthpiece rather than the shank acting as a slide. It must have been a tremendously difficult instrument to master, for the trumpeter had to press the mouthpiece to his lips with two fingers of the left hand and draw the trumpet body out and in like the slide of a trombone.[137] Small wonder that the instrument never achieved complete acceptance.

This instrument was doubtless the *tromba da tirarsi* that Bach prescribed in cantatas 5, 20, 46, and 77.[138] In cantata 46, Bach writes for *tromba o corno da tirarsi*, and in two other cantatas, Nos. 67 and 162, he indicates *corno da tirarsi*.[139] Charles Terry, in his *Bach's Orchestra* interprets the latter term as meaning a *tromba da tirarsi* equipped with the funnel-shaped mouthpiece of a French horn.[140] Of this combination Curt Sachs remarks:

> "Such a combination is unprecedented and hardly possible, as the bore of the horn's mouthpiece is much too narrow for a trumpet. It would be more probable that the two terms referred to the same instrument."[141]

We have no record of this instrument being connected in any way with the *Kameradschaft*, and it is possible that it was available to the local musicians in Baroque time. If this is so, knowing how jealously the *Kameradschaft* guarded their rights, it is possible to assume that the local musicians chose not to arouse their ire, and merely called this instrument a horn; this is purely in the realm of speculation, but there is no evidence to the contrary.

Altenburg's comments lead us to believe that the *Zugtrumpete* was common in Germany, but the extreme difficulty encountered in the execution of this instrument, plus the fact that only one example has survived from this period, leads to the conclusion that this instrument never achieved importance in the Clarin art.

Waldhorn

Less controversy exists concerning the Waldhorn, the second type of instrument left by Reiche at his death.

It is well known that in the middle 17th century the length of the natural horn was increased as much as twelve feet. Pitched in F, this instrument possessed consecutive notes in the fourth octave of its harmonic series; thus it acquired new melodic possibilities hitherto denied its ancestor the short hunting horn.[142] Coincident with this increase in length was an increase in diameter and a decrease in the number of circular coils which gave the horn its form.[143] At an earlier point of development, the horn closely resembled the *Jagertrompete* previously discussed (tightly coiled hunting horn). The horn underwent considerable improvement in the 17th century, and in France the resulting improved model was given the title the horn holds today; French horn. This instrument was said to have so fascinated the Bohemian dilettante Franz Anton Count von Sporck that he ordered his musicians to master the instrument and introduced it shortly before 1715, where it became known as the Waldhorn.[144] This horn could have hardly been more than a novelty when Bach began his career as a composer, yet we know it was in service before 1713, for Mattheson writes:

> "The stately mellow-sounding Waldhorn has come a good deal into vogue of late (1713) partly because it is more easily handled . . . It produces a rounder tone and fills out the score better than the shrill clarin."[145]

The Waldhorn as used in Bach and Handel's time was played like the contemporary clarin trumpet, in that it was consistently asked to sound up to the twentieth partial and even beyond; in this region the notes of the natural harmonic series lie close enough together to permit the execution of diatonic passages.[146]

It was at Cothen that Bach first scored for the Waldhorn in his first Brandenburg Concerto in F. At that time, his orchestra contained no horn-players and the well remunerated visit of two guest *Waldhornstein* on June 6, 1722 undoubtedly indicates the première performance of the first Brandenburg Concerto.[147]

Perhaps one of the guest hornists was Reiche, for at this time he was undoubtedly in his prime at fifty-five years of age, and certainly at the peak of his skill in playing the upper-partials of natural brass instruments. Such skill is required of the horn in bars 60 and 74 of the first Brandenburg;[148] also, with the horn being an instrument of nobility it is possible that no pains were spared in acquiring a suitable performer for this permière performance. In the realm of speculation, their possibly appears a connection between this guest performance, and Vincent Bach's comment that Reiche travelled on horseback, while on concert tour.[140] Certainly Reiche's fame had spread far and wide by this time, and it would be natural for Bach to desire a man of his caliber. Perhaps Reiche was one of the *Cothen Waldhornstein* who arrived on horseback.

Reiche as an Inspiration for Bach's Trumpet Parts

A great deal has been said about Reiche, "Bach's Trumpeter," being the inspiration for Bach's host of demanding trumpet parts. While it is true that a man of Reiche's talents would be a constant source of inspiration for anyone desiring musical excellence, there is scant evidence that Bach wrote especially for Reiche.

The trumpet parts Bach actually wrote for Reiche, while at Leipzig, present no more difficulties than those Handel scored for Snow* or Purcell for Shore.*[150] Reiche's parts are merely typical of late Baroque trumpet writing. Moreover, a number of Bach's most taxing trumpet parts date from his *Cothen* period; the most difficult being the trumpet part in second Brandenburg concerto. At the time Bach composed this work, his orchestra was assisted by two trumpeters, Johann Ludwig Schreiber and Johann Christoph Krahl.[151] There is no definite evidence that Reiche ever participated in a performance of this work or that he even owned an instrument on which the part could have been played.

Reiche's *Jagertrompete* once thought to have been in F (it has recently been proved to be in D) was the only instrument he owned which even came close to the instrument required for the second Brandenburg. However, the case of Reiche and the performance of the second Brandenburg Concerto is still not closed, for Norman Carrell writes in his *Bach's Brandenburg Concertos,*

> "The painting of Reiche by Haussmann depicts the player holding a small closely curled trumpet in his right hand and a piece of music in his left. The instrument has been measured as accurately as possible and was thought to be in D fitted with a small "C" crook . . . One can assume that a conscientious painter would be careful to depict the correct number of curls in an instrument but one cannot expect him to have his measurements exact and it is possible that the instrument is in F and carries an E-flat crook. In this case Concerto No. 2 would fit it perfectly and be quite playable on an instrument without the crook, i.e., in its basic key of F."[152]

Did Reiche play the Brandenburg? We will probably be forever puzzled by this enigma, but it might be remembered that we know nothing of the capabilities of the two Cothen trumpeters, and in view of the two guest hornists which Bach called in to participate in the performance of the first Brandenburg Concerto it is possible that he also called in a guest soloist to handle this difficult clarin part. If so, Reiche would have certainly been first candidate for the part.

We know that Bach was deeply affected by Reiche's death, but his

*See supplementary information

tragic demise did not alter Bach's manner of writing for the trumpet.[153] In the cantatas written after 1734, the trumpet parts are just as florid and technically demanding as the earlier ones.[154] This fact certainly confirms that Reiche's successor (Ulrich Heinrich Ruhe)[155] was also an accomplished trumpeter.

Reiche's uniqueness, in contrast to later virtuosos such as Shore and Snow, lies in the fact that he was a multi-talented *stadtpfeifer* who was called to play the trumpet, Waldhorn, Zugtrompete, trombone, violin, Zink, and possibly other instruments;[156] such versatility speaks highly of Reiche's extraordinary talents.

The great importance of Reiche and his fellow Clarin virtuosos was pointed out most clearly by Mary Rasmussen when she wrote:

> "The presence within a group of stadtpfeifers of trumpeters (sic) of the caliber of Reiche and Ruhe was truly remarkable, and it had a result far more important than the individual difficulty of single parts (which were written for them). The continuous presence for more than sixty years of great stadtpfeifer-trumpeters lent the works of Schelle, Kuhnau and Bach a splendor and dignity which became one of the hallmarks of the Leipzig cantata."[157]

Reiche's Music

The last insight which we have into Reiche's life is found in the music he left his followers. As forementioned, he wrote forty Sonaten a 5, twenty-four *Neue Quatricinia* for one cornett and three trombones, left Gleditsch, his follower, 122 "*Abblase-Stucken*" for several instruments, and also five books of chorales apparently in his own settings.[158] Of all of these works unfortunately only the Quatricinia have been pre- left Gleditsch, his followers, 122 "*Abblase-Stücken*" for several instru- served, and then only in twentieth century editions; the last remaining copy of the original printing was lost during World War II.[159] The Quatricinia were published by Reiche himself in 1696 and were printed by Johann Kolar.[160] The introduction reads:

> "Dear Reader:
>
> "Nothing in all art can claim finer qualities than Noble Music. My pen is much too weak either to repeat here, or to say what professional and highly-learned men have affirmed so competently. As this mathless art spreads it charms in many ways, we find in most cities the praise-worthy custom of having the so-called "Abblasen" sounded from churches and town-halls. This is always a sign of joy and peace; because wherever such music must be discontinued there must be national mourning, war, or other misfortune. In the same spirit I have contrived the present Quatricinia and respectfully request, dear music-loving reader, that you will allow yourself to be pleased by this work. In my own small way, I am also willing, for the honor of God and the useful pleasure of my fellow men, to publish some five-part pieces. I have already written forty five-part Sonatas for

> the musicians here in Leipzig, with whom I have now been associated for eight years, but because of difficulties their appearance presents to the technique of printing, I have had to put them aside.* I have taken care with Quatricinia to make them easy on the eyes and to write something using slower notes. One more thing must be understood; the Alle breve is performed with a fast-moving beat. Although this reminder is not for the musically enlightened, it is added for the benefit of those who know less about the art. I remain my dear reader,
>
> your most obedient servant,
> Gottfried Reiche"[161]

An extensive analysis of these works occurs in Arnold Schering's Musikgeschichte Leipzigs II (1926) and also in Brass Quarterly Fall, 1960. A brief summary of the main points of these analysis will serve our purpose here, and an example of typical Reiche fugue is presented in the appendix.

Reiche's Quatricinia were written to provide new music for the *stadtpfeifer's* daily 10 a.m. and 6 p.m. "Abblasen from the Rathaus (tower music). Concerning the Quatricinia Rasmunsen writes:

> "The principal influences of Reiche's writing were the French overture, the monothematic ricercar; and in two instances, the pictorial keyboard pieces of the French clavecinists. The influence of the overture can be seen in Reiche's frequent pairing of a slow introduction in a dotted rhythm with a faster, fugal movement. The influence of the monothematic ricercar is witnessed in the restrained neutral, rhythmically conservative style of the fugues."[162]

In general Reiche's Quatricinia fall into two main categories; a larger number of fugal pieces based on abstract subjects; and a small number of miscellaneous pieces which diverge from the general pattern by virtue of some technical or thematic individuality.[163]

Schering writes that it seemed as if Reiche wanted not only to prove his competency in counterpoint but also the suitability of fugue for *Abblasen.*[164] At any rate his Quatricinia are in a completely different style than the *Abblasen* of Petzel, Reiche's predecessor.[165]

As Mary Rasmussen puts it,

> "Fugue to Reiche was an imitative procedure and contrapuntal texture, rather than a form. There are as many forms to his fugues as there are fugues."[166]

She writes further,

> "Some of the fugues are describable in the modern terminology of exposition, counter-exposition and episode, others are not; and it is clear that such matters rarely concerned Reiche."[167]

In general, Reiche's harmony is tonal; however, there are occasional

*See supplementary information

lapses. He roams unfettered through related keys in later expositions, with modulations to relative major and minor, dominant and subdominant, mediant, and dominant minor keys.[168]

Reiche's talent as a composer is not awe inspiring, but these humble pieces undoubtedly fulfilled their purpose, as witnessed by the remarks of Gentzmer to the town council of Leipzig concerning the high merit of these pieces. As Mark Rasmussen sums it up:

> "Coming from the pen of a young, relatively untutored stadtpfeifer, these pieces are nothing short of remarkable."[169]

As Miss Rasmussen states it is indeed a pity that Reiche did not study and enrich the repetoire of brass literature more.[170]

The Decline of the Clarin Trumpet

With the passing of Bach and Handel the art of clarin playing languished and died. Reasons abound for this unfortunate happening. In the aftermath of the French Revolution, numerous small courts which had maintained players for enjoyment and prestige disappeared.[171] Altenburg mentions a dozen such cases during his lifetime.

The restrictive domination of the various trumpet guilds had forbidden any wide popular use through which the old technique of clarin playing might have survived. Only the less enterprising technique of military players could be counted upon. However, the most telling blow to this noble art came from the rapid increase in size of the eighteenth century orchestra.[172] As a result of this increase the clarin trumpeter had either to overblow and make an unpleasant noise or be almost inaudible. With Bach and Handel this problem did not arise, because they still used a small orchestra, fundamentally consisting of strings augmented by a few woodwind instruments according to the nature of the composition.[173] For instance, the larger number of instruments used by Handel in the orchestra, were never used altogether, but only those suitable to his purposes were selected for the composition in question. However, after the beginning of the eighteenth century the orchestra assumed more or less the constitution it has today. Further problems can be traced to this new constitution. The orchestra of the Classical period had the usual doubling of the wind instruments, i.e., two flutes, two oboes, two clarinets, two bassoons and two horns, which were associated with two trumpets.[174] These trumpets now had to deal with passages in entirely new keys due to the necessity of filling the range vacated by the horns, which were moved down into their middle registeres by classical composers. As a result the old "D" clarin trumpets of previous decades were unable to maintain their position in the orchestra, since, even with the adaption of the crook, between the mouthpiece and horn body (an idea borrowed from the horn), they could only be tuned in "Db", "C", "B", and "Bb".[175] Lower tuning was found to be impractical as the trumpet so tuned was said to take on a dull and thin timbre and a peculiar uncertainty in the production of various notes. This peculiarity probably stemmed from the greater length of tube in relation to the shape of the tube (narrow and conical almost to the end where it ends abruptly in a small flared bell). As a result, it was necessary to introduce higher tunings by shortening the tube. In doing so it was possible to tune down to Bb and all keys were available except the "A" tuning, for which the "D" tuning was often substituted.[176]

The constant changing of crooks made it extremely difficult for players to master the uncertainties, of intonation in each different key, and it therefore became almost impossible to acquire virtuoso skill on one instrument in one tuning; just such a skill is required for the clarin register.[177] This difficulty hastened the decline of the clarin trumpet, and also brought about the alteration of the original trumpet range so that instead of the broad choice of harmonics available in the clarin register the trumpet was forced to move into easier middle register to cover the gap left by the French horn, (now in its preferred middle register). Consequently, the trumpet was left with a limited choice of notes in each of the available keys, i.e., those of the triad. Thus, as a result, we find that even Mozart in his re-orchestration of Handel's "Messiah" was compelled to simplify the trumpet parts.[178]

However, what is gained in ease, is often unfortunately lost in quality. As I have mentioned, it is precisely the long narrow tube of the clarin trumpet which favors the high harmonics, not only as high notes, but also as to brilliance and resonance of tone. To play high parts, the long trumpet must of necessity use its high register, and though this is difficult, it is by no means impossible.

The reward in sheer brilliance of tone is well worth the necessary effort.

After the downfall of clarin trumpet art, the trumpet underwent a painful succession of growing pains which resulted in many freak inventions. These inventions strove to give the trumpet a true chromatic compass in its newly used middle register. These attempts culminated in the invention of the valve in May of 1815, by Heinrich Stozel and Freidrich Bluhmel (see Urban, 532 music education paper "The Early History and Evolution of the Valve Mechanism" for further details).

The consequence of the valve, which has continually been technically improved right up to our own day, was a gradual return to the practice of making one instrument in one tuning, usually Bb. It will be remembered, that the clarin trumpets were usually in D. The modern short Bb trumpet, which can play the entire literature of the trumpet, excepting the highest clarin parts and a few modern works, is not to be belittled. This is true especially when the composer has specifically written to exploit its virtues, as Rimsky-Korsakov, for example, was inclined to do.[179] These virtues are great agility and certainty, coupled with an acceptable and pleasing colorfulness and brilliance of tone. But even these graces do not compensate for the lost advantages, of the early clarin trumpet in music written for that instrument, which is, let there be no mistake, the *more* colorful and brilliant of the two instruments.[180]

For this reason some attempts have been made to recapture the assets of the clarin trumpet without retaining its liabilities. The most remarkable was Kosleck's so-called Bach trumpet in A.[181] This instrument, pitched a fifth above the real Bach or clarin trumpet is considerably more colorful and brilliant than the modern Bb trumpet. Unfortunately, it is, as can be expected, less brilliant than the long clarin trumpet.[182] Except for its valves, this trumpet is made picturesquely straight, in emulation of its early ancestor; but this is no more than a half-way compromise.[183] A similar but shorter and higher Bach trumpet in D is also used: but this, though markedly brighter than the modern short Bb trumpet, is also a short instrument lacking the noble qualities which only the long, narrow bore of the clarin trumpet gives forth.

The most successful attempt has been made by the aforementioned Werner Menke. After careful measurements of all the clarin trumpets extant, Menke, with the assistance of the firm of Alexander Brothers (Mainz), made a D trumpet modeled on the specifications of the old clarin trumpets, with the justifiable addition of two valves for correcting intonation. Accompanying this instrument, Menke also reintroduced a special trumpet in F especially for use in the second Brandenburg Concerto; unfortunately neither of these instruments have met wide acceptance despite favorable press releases concerning their debuts in performances at Leipzig.[184]

Despite this apparent set back to the return of Clarin art, the use of the modern trumpet has increased. It is developing in the same ascending line, as from the discovery of clarin notes to Bach. But now, it is being fully exploited in the realm of its limited compass (which is governed by shortening and chromaticisation).[185] The ever increasing demands of composers are forcing the trumpet to break through the barriers which confine it—beyond to the "fresh opening up of the highest register, the Clarin register." And as Menke aptly states,

> "We stand today, at almost the same state of executive development as in Bach's time—only with an essentially more perfected instrument."[186]

The clarin art will not rise again unless our composers wake up to the possibilities of the "prince" of instruments, for there must be an abundant calling for its use; there is no room in today's competitive music-world for a specialist in clarin art. Perhaps another giant among virtuosos will arise and awaken our composers to the possibilities of this fine art. And once again, the instrument of Kings and royalty will be returned to the pedestal from which it has fallen.

The Bach Trumpet Enigma

With the downfall of clarin trumpet art the Baroque trumpet receded into the background. The years which have passed have succeeded in drawing a shroud over the Baroque trumpet and all its glory.

Buried forever with the Baroque trumpet was any secret which might have held the key to flawless and effortless execution. The search for this secret has been carried ever on by musicologist after musicologist in hopes of finding the golden key to clarin playing. Is there really a secret to playing the Baroque trumpet? Before answering this question let us examine the problem posed by the Baroque trumpet.

Clarin playing arose through the discovery that the fourth octave of natural eight-foot trumpet afforded diatonic and chromatic tones due to the closely spaced partials in this high register. Performance was made treacherous by the high register and the closely spaced partials. The masters of the Baroque trumpet achieved perfection through natural strength, delicate embouchure, and tireless unceasing practice. Moreover, they devoted their entire life to this extremely difficult, but rewarding art.

The secret to clarin playing was and still is highly specialized practice over a long period of time. Musicologists have refused to accept this simple fact and for many years have been embroiled in controversy after controversy concerning the Baroque trumpet.

The latest and most sweeping controversy swirls around a hole which is acclaimed "the secret of the Bach trumpet." The history of this startling development is as follows.

In the late 1950's the Cologne Radio elected to form an orchestra for the purpose of performing old music on old instruments.[187] Of prime importance was finding wind instruments in good condition which could still be played or copied. Many such copies were made, but all attempts at reviving the clarin art on them seemed doomed to failure. The grestest problem encountered was overblowing in the fourth octave.[188] This problem was circumvented in the 19th century by using short four foot trumpets. These instruments were, of course, pitched an octave higher than their eight foot ancestors. Through their use the Bach trumpet parts could be played in the third octave instead of the fourth octave, as done formerly on the old Baroque trumpet.

The result of this switch was greater accuracy at the expense of true Baroque trumpet tone.[189] The third octave is too strong and unyielding; the tone is strident and shrill. As a result of these shortcomings the notes of the short trumpet do not blend with the orchestra. It was this problem that the Cologne Radio sought to avoid. Therefore, they commissioned noted instrument maker Otto Steinkoph to construct exact reproductions of historical instruments.[190] While searching for suitable models Steinkopf came across an old natural trumpet in Frankfurt which possessed a circular hole the size of a pin-head in its tubing. The hole seemed to have been drilled rather than the result of wear or corrosion.[191] After this discovery an English musical magazine ran an article which dealt with an old natural trumpet with two similar perforations.[192] Steinkopf made many attempts to solve the mystery of these holes, and finally reached the conclusion that their presence was not accidental but deliberate and that they were positioned at exact nodal points for a purpose.[193]

Through trial and error he discovered that if one hole was left uncovered it became impossible to produce all of the natural harmonics. However, if both holes were covered all natural notes became readily playable. By the help of these holes it became possible to execute the clarin register with precision, and the ever present danger of overblowing or cracking was removed.[194]

The historical accuracy of Steinkopf's work was validated by the discovery of two old posthorns which bore similar perforations at nodal points. These instruments were discovered in the house of Bernoulli, the Swiss collector of instruments, by Helmut Finke, an instrument maker actively engaged in building the repertoire of natural trumpets.[195]

Immediately musicologists seized this recent bit of trumpet lore and cried out in full chorus that the secret of the Bach trumpet had been at last revealed. One member of this chorus, Helmut Kirchmeyer, penned an article "Die Rekonstruktion der Bachtrompete" which appeared in the 1961 *Neue Zietschrift fur Music*.[193] In this article Kirchmeyer states:

> "The secret of the Bach trumpet was unveiled, thus rescuing the reputation of modern trumpeters, who had seemed unable to recapture the art of their ancestors. In truth all that had been lacking to attain this genuine sound was a little hole."[194]

Steinkopf's discovery is based on two trumpets—the one discovered by him in Frankfurt, the English one in London. The Frankfurt trumpet is an oblong valveless trumpet inscribed HALTENHOF/IN. HANAU. 1790 and possesses a small hole, crudely tapped, halfway down the tube.[195] Mary Rasmussen asserts that this hole was not drilled by the maker, but rather was a later addition.[196]

The English trumpet, made by William Shaw, (London 1787) is also an oblong trumpet. It carries four vents situated around two-thirds of the way down the tube. These vents served the purpose of transposition, and each was designed for a specific crook, except that designated for the length of the natural tube.[197]

That these holes serve a useful purpose is not to be denied, but the dates of the instruments which bear them (1790 and 1787 respectively) exclude them from any part in the clarin art as practiced in the time of Bach. They were in no way related to clarin playing and the exaggerated claims attached to them are without sound logical basis.

Mary Rasmussen effectively summarized the entire situation when she stated:

> ". . . The "Steinkopf'sche Lochsystem" is a myth, and there is still no reason to believe that the old high trumpet parts were ever played on any instruments other than the simple valveless trumpets—without holes. The sooner musicians and musicologists resign themselves to the fact that there is and never was any secret to clarin playing other than a sturdy lip, a good ear, and practice, the sooner all this secret-hunting nonsense will cease."[198]

•Obbligate (Italian) Literally, this word means "indispensable" and used strictly, serves to indicate those parts of a composition which cannot be omitted. It is employed generally to indicate a solo passage in a concerted work. Often this solo passage is a supplementary or counter-theme or line, more in the nature of a decorative additional musical idea than the essential of the literary definition.[199]

•Schering, Arnold (b. Breslau 2 Apr. 1877; d. Berlin, 7 Mar. 1941). German musicologist. He graduated with a Ph.D. at Leipzig University in 1902 with a dissertation on the early violin concerto.

In 1904 the Neue Bach-Gesellschaft appointed Schering editor of the annual "Bachjarbuch" and his publications on the oratorio, early chamber music, organ music, the performance of old music, etc., are numerous and valuable.

While Schering's scholarship was beyond question and enriched both music literature and the repertory of excellent books, articles and editions, he was, unfortunately given to defending certain notions of his own which lacked nothing in originality but rested on very dubious foundations and were maintained by him in the face of well-reasoned criticism with fanatical obstinacy and utter disregard of evidence.

One of his theories was that most of the sacred vocal music of the 14th-16th centuries had originally been organ music and was subsequently fitted with liturgical words; another that Beethoven's pianoforte sonatas and string quartets had literary programmes (mostly Shakespeare's plays) which the composer chose to keep secret—for what reason was never explained by Schering. He remained rigid in his beliefs concerning Reiche's Jagertrompete, and steadfastly maintained that it was pitched in F, and not D, as Menke, Blandford, and Hirabayashi contended.[200]

•Snow, Valentine (b? London, ?; d. London, Dec. 1770)

English trumpeter. He was possibly the son of Moses Snow, Gentleman of the Chapel Royal from 1689 until his death on Dec. 20, 1702, and also lay vicar of Westminster Abbey (Mus. B. Cambridge 1696), and minor composer.

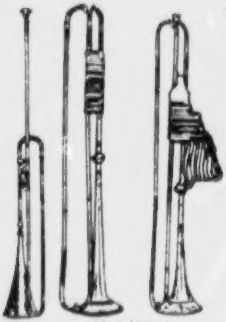
Valentine Snow became the finest performer of his day upon the trumpet. He was a member of Handel's oratorio orchestra, and it was for him that the latter wrote the obbligato trumpet parts in the "Messiah," "Samson," "Dettingen Te Deum," "Judas Maccabaeus," etc. No better evidence of his ability can be required. In Jan. 1753 he was appointed (in succession to John Shore, deceased) Sergeant Trumpeter to the king, which office he held until his death.[201]

•Shore, John (b. London, ca. 1662—d. there, Nov. 20, 1752), trumpeter and lutenist, for whom Purcell wrote many of the trumpet obbligatos for his songs. Shore succeeded his uncle William Shore as Sergeant Trumpeter to the Court in 1707. His name appears in 1708 as lutenist of the Chapel Royal. He is credited with the invention of the tuning fork. Shore's Trumpet Tune, which became very well known, was arranged by Clarke for harpsichord, and also for string trio. He composed other pieces.[202]

•This reference to the five-part sonatas is concerned with the state of printing technique, and not with any shortcomings on the part of the local *stadtpfeifer* or other groups. The reference "to make them easier on the eyes . . ." points to the fact that his earlier writing was probably quite florid, and as a result Kolar was probably not able to print them for the lack of type with enough leger lines and small note values which Reiche's music required. Also, the term "Sonata" in Reiche's time meant merely "a piece to play," and does not carry the meaning of our modern term, "Sonata."

•"Stopping consists in shortening the tube by inserting the hand into the bell-shaped end. If the hand (not the closed fist) is thrust into the bell, the tube is shortened. This would lead one to conclude that the pitch of a given note would be raised, because shorter tubes naturally vibrate faster, and consequently higher, than long tubes. Actually this is not the case, because when the tube is closed, the resulting pitch is lowered from its original frequency. Of two identical tubes, the one open at the lower end will produce a tone an octave higher than the one with its lower end closed. The art of stopping consists in introducing the hand in such a way as to close the tube enough to lower a given tone either by a semi-tone or a whole tone, however, there are certain cases where it is actually possible to raise a tone somewhat by stopping. If the tone is lowered a semi-tone, it is called a half step; if the difference is a whole tone, it is called a whole step.

Supposing the player has his lips in position to play a "G." By a half-stop he can change the G to F♯ and by a whole-stop to F. Similarly he can produce from "A" a "G♯" or a "G," and so forth."[204] Stopping does not produce entirely new notes where they are missing on a natural tube, and because of the distorted nature of these notes, they are called "inharmonics." Stopped notes are never as sonorous as natural notes, however, a skillful player may suppress this unevenness in tone quality by blowing the open notes softly. In rapid passages, however, this alternation of stopped notes and open notes remains unagreeable. To some extent, this substantiates the assumption that Fantini played his chromatic scale in the highest octave of his instrument to take advantage of its natural diatonic character, thus, avoiding poor sounding stopped notes.



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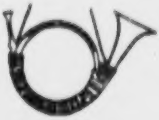
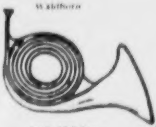
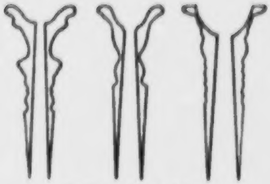


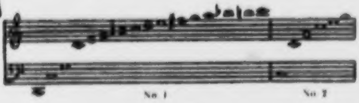
Waldhorn



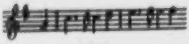
Early 17th Cen
Coiled Horn



Mouthpieces (from left to right)
Clarino, Tromba, Principale



Harmonic Series



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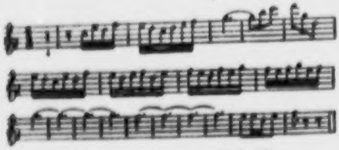

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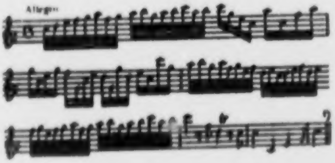

Fanfare from the picture by Haussmann

BACH'S ORCHESTRA — Cöthen

Name	Instrument	Dates
Chamber Musicians		
Joseph Spiess	Violin	
Joh. Ludwig Rose	Oboe	
Martin Fr. Marcus	Violin	Left June 1722
Joh. Christoph Torlée	Bassoon	
Joh. Heinrich Freytag		d. 1721
Christian Ferdinand Abel	Gamba and Cello	
Joh. Gottfried Würdig		
Christian Bernhard Linigke	Violoncello	
Joh. Valentin Fischer		Admitted Aug. 1719
[illegible] Rolle		Admitted June 1722
[illegible] Heinrich Gottlieb Freytag		Promoted Apr. 1721
[illegible]		
Joh. Freytag senior		
Wilhelm Harbordt		Left Jan. 1718
Adam Weber		
[illegible] Heinrich Gottlieb Freytag		Promoted 1721 (supra)
Trumpeters		
Joh. Christoph Krahl		
Joh. Ludwig Schreiber		
Timpani		
Anton Unger		
[illegible]		
[illegible]		Left Dec. 1717
[illegible]		Admitted Dec. 1717
[illegible]		Admitted and left →
[illegible]		1718-19
[illegible]		Admitted Aug. 1719

1660 je 8 fl. für 1 Alt- und 1 Tenorposaune, „vor die hiesigen Musicanten erkaufft."
1664 je 1 fl. 18 gr. Christian Tschum für Reparatur eines Tenor-Dulcians und zerbrochenen Bommerts
1664 je 6 fl. 12 gr. für 2 Trompeten und 1 Posaune
1667 je 14 fl. 8 gr. für 1 Fagot
1668 je 10 fl. für 2 neue Heerpauken
1668 je 8 fl. für 1 Capell-Trombone und Trompeten (Reparatur)
1670 je 9 fl. 15 gr. für 1 Tenorposaune von Caspar Degenhoff in Nürnberg
1670 13 gr. 6 Pf. für Überzug einer Pauke
1671 je 14 fl. 6 gr. Joh. Pohlmann wegen 2 von hiesigen Kirchen verfertigten Octav Bommert
1672 je 2 fl. 12 gr. für eine Altposaune (Reparatur)
1675 je 2 fl. an Heinr. Pfeiffer für Reparatur einer Quart- u. Baßposaune
1678 Eine neue Kiste für die Instrumente in der Nikolaikirche. (Die Thomaskirche hatte bereits 1675 zwei Kästen für die Intrumente auf dem Schülerchor angeschafft.)
1686 je 7 fl. 3 gr. für ein Paar neue Heerpauken
1693 je 2 fl. 20 gr. Heinrich Pfeiffer für 2 neue Trompeten und 2 unterliche Krummbogen dazu wie auch 2 Trompeten zu reparieren

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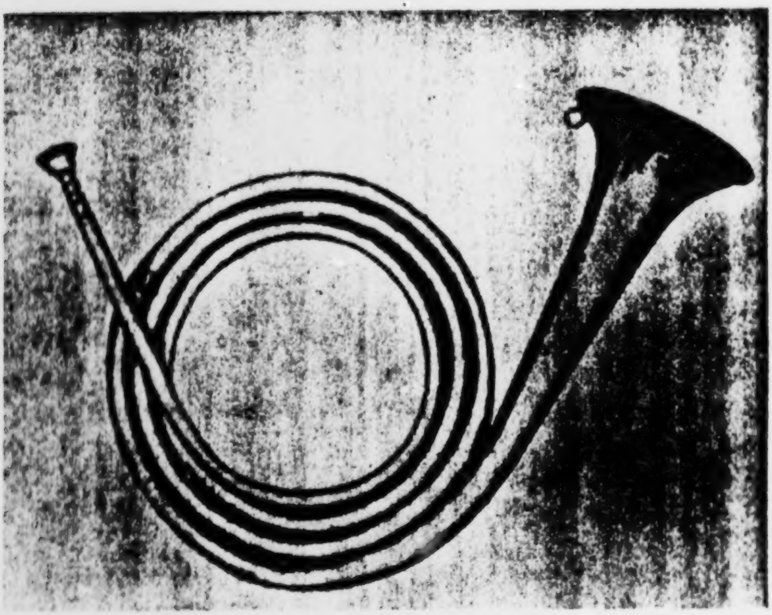
Name	*Kunstgeiger*	*Stadtpfeifer*	*Died*[1]	*Principal Instrument*
Gottfried Reiche	1700-6	1706-34	9 Oct. 1734	1st trumpet.[2]
Heinrich Christian Beyer	1706-48	...	21 Sept. 1748	2nd violin.[2]
Christian Rother	1707-8	1708-37	25 Oct. 1737	1st violin.[2]
Christian Ernst Meyer	1707-30	...	Apparently left Leipzig	? 3rd trumpet or 3rd oboe.[4]
Joh. Cornelius Gentzmer	1708-12	1712-51	25 Oct. 1751	2nd trumpet.[2]
Joh. Caspar Gleditsch	1712-19	1719-47	22 May 1747	1st oboe.[2]
Joh. Gottfried Kornagel	1719-53	...	14 Sept. 1753	2nd oboe.[2]
Joh. Friedrich Caroli	1730-38	...	1 March 1738	? 3rd trumpet or 3rd oboe.[4]
Ulrich Heinrich Ruhe	...	1734-87	11 June 1787	1st trumpet or 1st violin.[3]
Joh. Friedrich Kirchhof		1737-69	20 May 1769	oboe or flue.[3]
Joh. Christian Oschatz	1738-47	1747-62	13 Jan. 1762	oboe or flute or 2nd trumpet.[3]
Carl Friedrich Pfaffe	1748-53	1753-73	3 Mar. 1773	trumpet.[5]
Andreas Christoph Jonne	1749-62	1762-84	28 June 1784	? violin.[6]



Jagertrompete

Heinrich Pfeifer 1697

ABLE

FOOTNOTES

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[81] Schering, "Gottfried Reiche," p. 134.
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[83] Schering, "Gottfried Reiche," p. 134.
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[96] Schering, "Gottfried Reiche," pp. 134-135.
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A STUDY OF THE RATINGS RECEIVED BY MISSOURI HIGH SCHOOLS PARTICIPATING IN THE DISTRICT MUSIC FESTIVALS FROM 1959-1965

by

M. Orville Johnson
Supervisor of Music Education, Independence, Missouri

Need for the Study

In the fall of 1964, several discussions regarding music festivals were held with leaders of music education in Missouri and the Executive Secretary of the Missouri State High School Association, Mr. Irvin Keller. It was a consensus of opinion that some total results of the district music festivals might be enlightening and revealing as to the overall ratings given to the several categories of events. The study might also reveal interesting facts concerning the size of the festivals held in the five college centers and three additional centers in the State.

Mr. Keller, who has often talked with the reporter about festival problems, was heartily in favor of the research and promised to send the results to Independence so that the work of research could be made more easily.

Whether the study could produce any significant findings, and whether the findings could be judged valid, became the central task of the researcher. True, only totals of the results of the festivals were available. No personal records of any of the adjudicators, or of the district managers were sought and none were asked for. The study was to be made of the total results of the various festivals.

Collection of the Data

The information found in this study was gained from the office of the Missouri State High School Activities Association, Mr. Irvin Keller, Executive Secretary. The tabulation of musical ratings was gained from a sheet prepared by the activities office for each festival center. On this sheet was recorded the total ratings received as I's, II's, III's, IV's, and V's.

The sheet contained ratings for the following events: Band, Boys' Glee Club, Girls' Glee Club, Mixed Chorus, Small Instrumental Ensembles, Vocal Ensembles, Instrumental Solos, and Vocal Solos. Some districts added such items as Orchestra and Piano. But these additions were not regular even within the same district from year to year. The list of events contained no reference to such items as Brass and Woodwind Choir, String Orchestra or Small Vocal Ensembles, non-directed.

The figures for the study were gained simply by adding the totals from each event, adding the totals of all similar ratings, adding the entire list and abstracting the percentages therefrom.

The figures for the enrollments of the high schools of the state of Missouri between the years 1959 and 1965, was obtained from the "Missouri School Directory" for the years involved.

A Philosophical Statement of the Problem

A research of the results of the district music festivals of the state of Missouri could be looked upon as one of doubtful validity. However, the sheer number of students involved, the great number of adjudicators used, and the fact that the people responsible for giving ratings are trained musicians, should give us more facts for consideration than some professionals are willing to accept. From a total of 33,153 entrees from 1959 to 1965, plus the total of approximately 750 music judges who measure every area of the state, there must be an overall average that pushes itself to the surface.

Indeed, if the very practice of holding music festivals is valid, and the hiring of expert musicians to adjudicate has value, there must be a result that has both validity and worth. One has only to consider the many facets of life that are affected by the quiz master taking samplings of small groups of men, the effect that an average figure can have on the financial wizardry of our nation, or the average number of inches of rainfall that so obviously affect every part of our nation. To dismiss a study of these results without some analysis, serves to discount the very thing that education seeks to do. To minimize the nature of man, and his ability to objectively assess human endeavor, does neither credit our institutions of learning nor give credence to man's ability to judge, compare, and select.

Analysis of Results

The tables of figures pertaining to each year of district festivals reveal, first that the increase of participation has been tremendous. This growth in participation is due to a very great increase of students at the secondary level. Whereas elementary schools had witnessed this population explosion earlier, the secondary schools have experienced this increased number of school students for the last several years. The question that needs to be asked again and again is *whether this increase has caused us to be more generous with high ratings or whether* students ability has increased to this extent because of the increased participation. (See Fig. 2 and Fig. 3)

The second fact that can be observed is that the number of number I ratings has increased from 29.4% of the total entries to 38.9% of the total entries. In fact, in 1962, the number I ratings were 39.7% of the total entries. (See Fig. 1)

An even more important aspect of these ratings is this compilation of number I and II ratings for each year.

1959—29.4%
45.1
74.5%

1960—34.7%
45.0
79.7%

1961—34.3%
47.5
81.8%

1962—39.7%
44.5
84.2%

1963
Not Obtainable

1964—38.9%
44.5
83.4%

1965—39.6%
45.3
84.9%

(Fig. 1)

It is most noteworthy that this compilation of number I and number II ratings has increased to the extent that the total percentage is the highest in 1965 festivals. It is a known fact that an effort has been made to upgrade the ratings earned by the students. In fact, the state activities office has stressed the importance of the number I rating so that the total number of students traveling to Columbia would not be so large.

Our study would indicate that the number I ratings have not increased and in fact have decreased a little since 1962. However, judges have tended to allow just as many students to win a number II rating as well as to place what had been number I ratings into the same group. Therefore, this combined total seems to have become a somewhat misproportioned total.

When these two ratings are combined the remainder of percentage points becomes very small. In 1959, 25.5% of all entries earned ratings of number III, IV, and V. In succeeding years this percentage became smaller and in 1965 only 15.1% of all ratings were allocated to number III, IV, and V. (See fig. 1)

The entries of the district music festivals, from 1959 to 1965, have doubled in number.

1959–3694
1960–5136
1961–5452
1965–6641
1962–5355
1963–Not Obtainable
1964–6785

(Fig. 2)

Enrollment of High School Students in the State of Missouri.

Enrolled	Year	Increase	Percentile Increase
195980	1960		
245576	1964	49596	20.1%

(Fig. 3)

MUSIC COURSES OFFERED IN MISSOURI HIGH SCHOOLS

Courses	Year 1958-59[1]	Year 1963-64[2]
Fundamentals	138	146
Band	480	477
Orchestra	48	39
Theory and Harmony	21	28
Mixed Chorus	276	255
Glee Club (Boys)	308	284
Glee Club (Girls)	406	379
Music Appreciation	14	—
A Cappella Choir	19	—
Piano Ensemble	2	—

(Fig. 4)

[1] (Wheeler, Hubert, Commissioner. *One Hundred Ninth Report of the Public Schools of the State of Missouri, School Year ending June 30, 1958.* Jefferson City, Missouri.

[2] Ibid, *One Hundred Thirteenth Report, Ending June 30, 1964.*

TOTAL RESULTS OF EACH DISTRICT MUSIC FESTIVAL

1959

Ratings	I	II	III	IV	V	Grand Total
Kirksville	115	236	98	15	1	
Marysville	216	337	197	24	2	
Rolla	126	179	79	9	0	
Cape Girardeau	112	173	112	15	6	
Springfield	255	349	158	10	0	
Warrensburg	262	393	198	14	3	
Mexico	Not represented this festival year					
Chillicothe	Not represented this festival year					
Totals	1086	1667	842	87	12	3694
Percent	29.4	45.1	22.8	2.3	.03	

(Fig. 5)

TOTAL RESULTS OF EACH DISTRICT MUSIC FESTIVAL

1960

Ratings	I	II	III	IV	V	Grand Total
Kirksville	216	244	87	10	0	
Marysville	312	396	170	16	4	
Rolla	127	145	83	15	2	
Cape Girardeau	123	186	96	11	2	
Springfield	267	396	127	15	0	
Warrensburg	469	677	242	15	0	
Mexico	178	136	25	2	0	
Chillicothe	93	194	55	0	0	
Totals	1785	2374	885	84	8	5136
Percentage	34.7	42.2	17.2	1.6	.01	

(Fig. 6)

TOTAL RESULTS OF EACH DISTRICT MUSIC FESTIVAL

1961

Ratings	I	II	III	IV	V	Grand Total
Kirksville	245	303	98	5	0	
Marysville	285	405	126	0	0	
Rolla	173	239	90	3	0	
Cape Girardeau	148	200	48	4	0	
Springfield	298	422	194	19	0	
Warrensburg	500	670	266	22	1	
Mexico	167	156	44	3	0	
Chillicothe	99	198	59	2	0	
Total	1875	2593	925	58	1	5452
Percentage	34.3	47.5	16.8	1	.01	

(Fig. 7)

TOTAL RESULTS OF EACH MUSIC FESTIVAL

1962

Ratings	I	II	III	IV	V	Grand Total
Kirksville	303	323	114	13	1	
Marysville	313	361	163	21	1	
Rolla	Not Obtainable					
Cape Girardeau	132	233	70	3	0	
Springfield	569	516	204	8	0	
Warrensburg	636	797	175	3	0	
Mexico	174	158	59	6	0	
Chillicothe	Not Obtainable					
Total	2127	2388	785	54	1	5355
Percentage	39.7	44.5	14.6	1	.001	

(Fig. 8)

***

TOTAL RESULTS OF EACH DISTRICT MUSIC FESTIVAL

1964

Ratings	I	II	III	IV	V	Grand Total
Kirksville	381	345	112	2	0	
Marysville	371	505	239	15	0	
Rolla	343	311	95	10	1	
Cape Girardeau	Not Obtainable					
Springfield	510	556	243	12	0	
Warrensburg	682	853	288	19	4	
Mexico	224	231	54	2	0	
Chillicothe	134	224	99	10	0	
Totals	2645	3025	1130	70	5	6785
Percentage	38.9	44.5	16.4	1	.07	

(Fig. 9)

TOTAL RESULTS OF EACH DISTRICT MUSIC FESTIVAL

1965

Ratings	I	II	III	IV	V	Grand Total
Kirksville	331	383	116	11	0	
Marysville	291	429	207	26	0	
Rolla	211	150	28	0	0	
Cape Girardeau	Not Obtainable					
Springfield	449	547	187	30	2	
Warrensburg	911	992	221	18	1	
Mexico	274	291	35	2	0	
Chillicothe	164	220	101	9	4	
Totals	2631	3012	895	96	7	6641
Percentage	39.6	45.3	13.4	1.4	.01	

(Fig. 10)

*** 1963 results not obtainable

TOTAL RESULTS OF ENTRIES OF ALL DISTRICT FESTIVALS

1959-1965

Ratings	I	II	III	IV	V
1959	29.4	45.1	22.8	2.3	.03
1960	34.7	45.0	17.0	1	
1961	34.3	47.5	16.9	1	1
1962	39.7	44.5	14.6	1	.01
1963	Not Obtainable				
1964	38.9	44.5	16.6	1	.07
1965	39.6	45.3	13.4	1.4	.01

(Fig. 11)

TOTAL RESULTS OF ENTRIES OF ALL DISTRICT FESTIVALS

1959-1965

Ratings	I	II	III	IV	V
	12149	14049	5462	449	34
Percentage	38.4	45.3	16.4	1.3	.1
Grand Total Entries	33,153				

(Fig. 12)

The difficulties of adjudicating are numerous and the criticisms made by music directors following any music festival do not seem to solve these problems. It is possible that several ratings made by well meaning adjudicators are too high or too low. But this criticism can be leveled at most any group of men or women who offer themselves to hearing and adjudicating of one kind or another. Human nature, being what it is, will result in this kind of action and reaction.

To complicate the system by criticism neither solves the problem nor causes it to disappear. The better way to get at the problem would be to make an objective approach to the system and hope that these criticisms will result in greater satisfaction for both the student and teacher.

Some credence must be given to the fact that students involved in music performance have experienced several years of training. In most school systems throughout the state, students are encouraged to start playing instruments when they are about fifth graders. This very fact alone, should point up the fact that many of the musical organizations will perform in a somewhat better than average fashion. It is not sufficient to say that most of our music teachers have the same poor teaching experience year after year. The attendance of music teachers at clinics, state meetings, concerts, colleges, and workshops is evidence that many of the ambitious music teachers are helping themselves to become better technicians.

If the ratings are too high, as some will exclaim, the only other alternative is to raise the standards to challenge this growing ability. If our students are gaining in ability, as many are wont to believe, then it is high time that the music teachers themselves, set higher standards by which these same young people are judged. Perhaps it is correct to assume that only a few large musical organizations should receive the number one rating. Perhaps it is equally true that those teachers who seem unwilling to make self improvement should receive ratings of number four and number five.

To argue that these low ratings would embarrass the school and the students, and therefore discourage them from returning, is, I think, a wholly untrue approach to the business of developing a high standard for music education. Schools and teachers who are allowed to enter an organization which cannot play or sing with better results than number four or five, should be ready for the criticisms that should inevitably result.

If, on the other hand, we argue that the experience is good for the student, and experience is all we are seeking, then the final result will not be a factor in either discouraging or encouraging students or schools to take part.

One fact alone needs to be faced squarely by schools and music teachers alike. Namely, the fact that ratings do not always represent the musical ability of some schools. Consider the fact that when a higher rating is given than is justly earned, three negative results occur. The school gains a status that it does not deserve, the students take upon themselves an attitude of their ability that does not truly exist, and the community is lulled into a false sense of pride that it has no right to enjoy. These conditions provide the fertile ground from which ugly criticisms spring. It is no wonder that many schools cannot point with pride to a system of music education that really teaches students the science of music, the great artistic schemes of music, the emotional meaning of music, and the understanding of what music really can do for mankind.

If, on the other hand, our music ability is truly better than it was a decade ago, as professionals we should be true to our art and demand higher standards. Just as the four minute mile no longer exists, maybe just the "good band" should not receive the number one rating. Perhaps only the "excellent band" should be recognized as such. And further, maybe we should go one step further, namely, of having the adjudicators selecting the one large musical organization as being the truly outstanding group of the day. This puts the adjudicator in the limelight but if quality education is sought, and we are paying men and women to help raise our standards, this could be the very spark that will ignite diligent work in music education. One important fact needs to be remembered; music students and teachers are not supposed to be pitted one against the other. The standard of an "ideal performance" was the original goal set for each group and individual. Other areas of competition may want the former; music education has sought the ideal performance as its goal.

Suggested Reforms

The failure of professional musicians to honestly assess each other's ability has often been discussed by musicians themselves. This failure is not apparent in the events of the district music festival where students are involved. It does become more apparent when the musician discusses his compatriot. Why this is true, or whether it is greater than other groups of professionals is not known. There are activities carried on by the M.S.H.S.A.A. in which the teacher involved in the event is asked to fill out an evaluation card concerning the officiating. This card is expected from every school and from every coach. Failure to comply is a mark against the school.

Perhaps the music teacher should be given the same opportunity to evaluate the judging at the district music festival. This would not mean that a severe critical evaluation would eliminate any judge from the next year's events, but a continued low rating by many teachers would certainly give a reason for a district not hiring that judge.

These evaluations could then be made available to every district so that poor adjudicators would not be allowed to continue their bad practices over the state.

A close look at the total entries of the district centers will reveal that one of the centers has grown more rapidly. Two of the centers show a marked increase of entries but the Central Missouri District has almost tripled in total entries. The Jackson County area around Kansas City, Missouri has had a large population growth. This fact coupled with a great interest in performance in this area, has increased the problem put upon this district center. Whether Central Missouri College can handle this large growth is not for this writer to say. A closer look into the results from this center as well as an analysis of other centers could well produce some changes.

The Springfield area has also witnessed large growth. The continued growth of these areas could well create cause for concern. For how you deal with large numbers of students, whether smaller groups of young people make a difference with the adjudicating, or whether our school systems need to consider adjusting to another schedule, may well be some of the problems both M.M.E.A. and M.S.H.S.A.A. will need to consider in the very near future.

Be this as it may, it goes without saying that those charged with the responsibility of operating a festival have one of the biggest problems one can imagine. Much credit must be given them for the interest and energy that goes into every music festival. No one knows the great task of setting up one of these festivals unless they have actually been a part of its management. The above criticisms are not meant to be personal. It follows that when one compiles numbers, certain results are found that may or may not have been noticed before.

It might be a necessary task for the Missouri Music Educators Association to take a more active attitude toward the problems that face the State Activity Office and the District Managers. Since the M.M.E.A. has a standing committee for this purpose the problems of this activity should be well known and discussed openly before annual meetings and sectional meetings.

The district festivals, because of their size, are having an increasingly difficult time keeping daily schedules on time. Some effort at this problem could well be extended. Perhaps more students working as time keepers might be the answer.

Reporting Practices

In studying the results of these music festivals of the past several years, several practices of reporting could be improved.

1. All districts should report the same items.
2. All districts should report these items on the same form.
3. All districts should be supplied with these forms from the M.S.H.S.A.A. office.
4. All results should be published in the Activities Journal and the Missouri Music Journal.
5. These results should be figured in terms of percentages as well as total numbers. This should be done by the Activities Office.
6. All districts should report for *every kind* of entry of the festival.

In the analysis of the results of music festivals, no compilation sheet from any district had any place for a large instrumental organization other than band. Several areas indicated that some orchestras had performed, others ignored this fact.

If large ensembles are to be considered important, then these, too, should be reported as such—brass and woodwind choirs, string orchestra, madrigal ensembles or other large vocal groups not conducted.

The researcher is well aware of the tremendous task of operating a music festival. However, if this activity is worth the effort of many teachers and students and the vast expense of moving busses loaded with children to and from the festival center, as well as the expense of entry fees, then the total results of each day's happenings should be a matter of concern to those who operate this state function. Perhaps we have had a "head in the sand" attitude because we really did not know what was happening and had no true method of evaluation.

7. It would seem a worthwhile effort on the part of the M.S.H.S.A.A. to hold joint meetings with those who operate the music festivals. An evaluation meeting held every two years might solve many problems that regularly occur and erase the possibilities of common errors.

SUGGESTED REPORT SHEET OF DISTRICT MUSIC FESTIVALS

Date

District ....

Manager ....

Events	*Ratings*					
	I	II	III	IV	V	Totals
Band						
Orchestra						
Brass Choir						
Woodwind Choir						
String Orchestra						
Small Instrumental Ensembles						
Instrumental Solos						
Mixed Chorus						
Boys' Glee Club						
Girls' Glee Club						
Small Vocal Ensembles						
Vocal Solos						
Piano Solos						
Totals (Columns) **Total number of entries**						
Percentage of total ratings with total entries						

Signed

Manager

Conclusion

The practice of holding district music festivals seems to be an accepted activity for high schools in Missouri. The several centers holding festivals have worked hard, attempting to arrange daily schedules that accommodate many schools and many students. Festival managers are to be complimented on the diligence they have exerted for the many schools, teachers, and students.

Some practices of these festivals could be improved.

1. All festival centers should be required to return the summary of events and ratings to the state office.
2. The same form should be used by all festival centers. The state activity office should supply these.
3. Percentages may or may not be figured by the districts. (But they should be completed)
4. Ratings of judges might be a means of eliminating some poor judging.
5. Stricter time schedules should be followed. This includes the timing of large and small entries.
6. Results of festival should be published in Music Journal and the State Activities Journal. Compiled results should be a part of the report for every year.
7. Evaluation meetings should be held with district managers.
8. Consideration should be given to the size of festival centers.
9. The Missouri Music Educators Association should take a more active attitude toward the problems of this music activity.
10. The expenses and receipts of the festival centers should be published.

CRITIQUE I: M. ORVILLE JOHNSON'S STUDY OF THE RATINGS RECEIVED BY MISSOURI HIGH SCHOOLS PARTICIPATING IN THE DISTRICT MUSIC FESTIVALS FROM 1959-1965

Kent Toalson
MMEA Vocal Vice-President
Hickman High School
Columbia, Missouri

This is a very worthwhile article and should be read by every Missouri music educator involved with evaluative music festivals. Mr.

Johnson is to be commended for his perception and for the depth of study obviously undertaken to prepare such an analysis.

Some concern is evident as he notes that from 1959 to 1965 the percentages of I and II ratings has increased from 74.5% to 84.9%. This means that presently fewer than 15% of the participants receive III, IV and V ratings. Perhaps if we are to reduce the total I and II ratings, we should consider revising the Instructions to Adjudicators section of our current Evaluative Music Festival Manual. For example, although a III rating is listed as Good and a V as Below Average, both use the identical wording, "indicates much room for improvement", to describe the quality of performance. I am not surprised, therefore, that relatively few low ratings are awarded.

Also, the report does not mention that with an increased number of students in music and with a limitation on the number of solo-ensemble entries, surely numerous teachers pre-audition and eliminate many who would receive low ratings if permitted to enter district festivals. These musicians participate in general classes and in prep groups but do not enter competition.

I wish that Mr. Johnson had included some reference to the St. Louis area non-competitive festivals. The number of students participating would affect the total figures shown in Fig. 2, and it seems the St. Louis area students are included in the enrollment figures listed in Fig. 3. I wonder if the current trend toward an increase in high school Allied Arts or Humanities courses should not have been included in Fig. 4?

If, as the article states, "students and teachers are not supposed to be pitted one against another;" it does not seem likely we shall soon change to a ranking system of adjudication. However, more consistent ratings might be the result if similar ensembles or solos where heard by the same judge within a particular festival. I believe we as music educators must be careful not to overstress the "ideal performance" to the extent that this becomes the entire plan and purpose of our music program. The evaluation of adjudicators is an excellent idea if we remember that low rating and poor adjudication are not necessarily synonymous.

Concerning growth of the individual festivals, the Springfield (Southwest) area was divided in 1966. From outward appearances it would seem advantageous to do likewise in the Central District, but certainly this is a decision to be reached by those directly concerned.

I agree entirely with the suggested reporting practices as outlined by Mr. Johnson. I would, however, add Madrigal Ensembles or Larger Undirected Vocal Ensembles to the Events on the Suggested Report Sheet. This item was mentioned in the text, but not included on the Report Sheet.

The Conclusion is well stated; and if attention is paid to the ten items included, I am confident the quality and educational values of Missouri music festivals will be enhanced.

CRITIQUE II: M. ORVILLE JOHNSON'S STUDY OF THE RATINGS RECEIVED BY MISSOURI HIGH SCHOOLS PARTICIPATING IN THE DISTRICT MUSIC FESTIVALS FROM 1959-1965

George C. Alter
MMEA Orchestra Vice-President
Southwest High School
Kansas City, Missouri

The recent *Study of Ratings Received by Missouri High Schools Participating in the District Music Festivals From 1959-1965* by Dr. Orville Johnson is an interesting compilation of data gleaned from the files of the Missouri State High School Activities Association. Some significant questions have been raised and avenues opened for scholarly research by this work.

The main point of the study apparently is that the I and II Ratings are awarded too frequently. The Festival Manual states that a rating of I or II is to be awarded only to "the finest conceivable performance for the event and class of participants being judged" or "to an unusual performance in many respects but not one worthy of the highest rating due to minor defects".[1] If judges are following the Festival Manual the music educators of Missouri are to be commended for quality teaching. If this is not the case, the judging should be improved but in either event the system is not at fault, only the implementation of the system. Assuming that the thesis of Dr. Johnson is correct, several questions as yet unanswered because of insufficient data, are apparent.

What percentages of the various ratings, particularly with reference to the large groups, were awarded the various classifications of schools? Of what probable effect is the increased use of pre-festival eliminations? Could it be possible that the potential ratings of III, IV, and V are being with-held from the festival? If all schools were required to enter their large groups in festivals the proper balance of ratings might well be achieved. The coach with a poor football team is required to participate, thus maintaining the proper balance in the won-lost record. What percentages of I ratings from the various districts received Honor Ratings at the State Festival? Could it be that the District Festivals are doing an effective job if "music education has sought the ideal performance as its goal" as stated by Dr. Johnson?

The conclusions of Dr. Johnson, though not all are based on the study or the data included there-in, are for the most part valid. All of the "Reporting Practices" advocated would improve the festivals, but may or may not affect the Ratings of I, II, III, IV, and V.

The chart showing a comparison of course offerings in Missouri High Schools in 1958-59 and 1963-64 is a most significant part of the study. Why did the number of performing classes (band, orchestra, mixed chorus, boy's and girl's glee clubs) decrease while so-called academic courses increased in number (fundamentals, theory, and harmony)? Can this be attributed to the emphasis upon the so-called academics? Is the implication that the number of I ratings did this, or is there no implication? Is consolidation of schools a factor? If so, how do we account for the decrease in the number of orchestras; an organization normally not found in schools of pre-consolidation size?

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[1] *Evaluative Festival Manual for Missouri High Schools, 1964-65* p. 14

CRITIQUE III: M. ORVILLE JOHNSON'S STUDY OF THE RATINGS RECEIVED BY MISSOURI HIGH SCHOOLS PARTICIPATING IN THE DISTRICT MUSIC FESTIVALS FROM 1959-1965

Richard A. Wolter
MMEA Secretary-Treasurer
Clayton High School
Clayton, Missouri

Dr. Johnson's study of ratings received in District Music Festivals over a seven year period reveals some interesting trends. First, it is noted that overall participation has increased from 3694 students in 1959 to 6641 in 1965. Entries have doubled in number, but the enrollment of secondary students in Missouri during the same period of time increased only 20.1%. Second, the percentage of I and II ratings in comparison with lower ratings has risen consistently. The reasons for the first trend are easily found—the population explosion has reached the secondary school level, and a higher percentage of children are involved in performance groups. The reasons underlying the second trend are more difficult to find. Does it follow that increased participation will mean a general rise in the calibre of performance? Are adjudicators giving high ratings too frequently? Dr. Johnson points out that in 1959 only 25.5% of all entries earned ratings below II. In 1965 only 15.1% below II were given. In the listing of overall results 38.4% received I ratings, 45.3% received II ratings, and only 17.8% received lower ratings. It would appear that it has become easier to receive a high rating, unless the calibre of music teaching has improved tremendously in the past seven years.

Dr. Johnson understandably suggests that standards of adjudication be raised. This writer feels that true musical standards have existed, but have not been followed. They have been flexed. If I and II ratings were reserved for only excellent and superior performances, they would be rare indeed. However, many factors enter into the decision. We are concerned about effects a lower grade will have on a promising student, or a budding but not proficient performing organization, or a teacher's reputation. Yet a sacrifice of standards, even for these tempting and humane reasons, does no service to the cause of faithful, accurate performance of good music, which must be one of our major efforts as music educators.

By attempting to encourage, sooth and protect, we abort the very essence of the thing we attempt to teach—the musical ideal. The writer sincerely feels that a much greater service would be provided to the inquiring festival student, and to the cause of music, by reserving the I and II rating for the truly excellent and superior performance. Rare, yes, but a much more responsible position is taken by speaking the truth, even if it hurts. Students certainly will respect unyielding standards more than flexible ones which attempt to accommodate extenuating circumstances. They will also gain an accurate estimate of their ability and achievement, rather than a misleading and confusing appraisal.

Dr. Johnson's suggestions found in the conclusion of the report should, if followed, provide the accurate information pertaining to the percentages of ratings awarded. A continuous appraisal would certainly provide a close look at the validity of adjudication taking place in Missouri.

CRITIQUE IV: M. ORVILLE JOHNSON'S STUDY OF THE RATINGS RECEIVED BY MISSOURI HIGH SCHOOLS PARTICIPATING IN THE DISTRICT MUSIC FESTIVALS FROM 1959-1965

Ben E. Markley
MMEA First Vice President
Southeast High School
Kansas City, Missouri

Dr. Johnson is to be commended for expending the time and effort needed to prepare this report. His ten positive conclusions at the close are all good and worthy of execution. Particularly is the statement that the MMEA should take a more active attitude toward the problems of the contest-festival worthy of implementation. However, some inferences and suggestions in the body of the report need careful appraisal and criticism.

His conclusion that the high number of I and II ratings awarded recently means that mediocrity is being rewarded and that it is therefore necessary to reduce the number of these ratings awarded seems highly invalid.

In recent years we have seen a tremendous growth in schools, particularly suburban schools with new buildings, unlimited financing and expanded music staffs of highly competent teachers. Students attending are from homes where the income is good and cultural interests high. More students have private instruction. Many many more are in music groups, particularly band. As a result those students chosen as contest-festival entrants are more highly selected than was formerly true. This naturally has meant that more high ratings were awarded by the judges. It could not be otherwise.

May we not give ourselves a pat on the back and say that our musi teachers are doing a better job than was true ten years ago? At least should not be ignored as a factor.

To "upgrade" ratings so as to limit the number of students travelin to Columbia is indeed an unfair procedure. A comparable action woul be to discount the number of points a basketball player scored in season so that there would be fewer high-scoring players. To stifle fin achievement in order to save overcrowding facilities at one center seen indeed brutal. How simple to do as other states have done and establis several centers designated as "State Competition Centers". Wear and tea on all concerned would be lessened.

No, we are not willing to assume, as Dr. Johnson suggests, that it i time that only a very few large music organizations should receive th number one rating.

This would be a return to early contest thinking of 35 years ag where entrants were ranked first, second, third, etc. There are too man subjective factors inherent in a judge's decision and too many varie opinions on what constitutes fine playing or singing for us to mark very few as *the best*. Let us not move backward in our thinking on con test-festival ratings.

There is reason for nothing but rejoicing in the fact that more and II ratings are being awarded than in recent years. A cause for grea concern, however, is the fact that only *one* orchestra in the whole Cen tral Missouri area received a I rating at Warrensburg in 1966.

A STUDY OF THE EFFECTIVENESS OF MUSIC LESSONS PRESENTED VIA CLOSED CIRCUIT TELEVISION AS COMPARED WITH LESSONS PRESENTED DIRECTLY IN THE CLASS ROOM

Richard Garcia M.A.
Eastern Washington
State College

INTRODUCTION

There seems to be increased interest and activity in educational television in Missouri. Various supervisors from the State Department of Education have expressed strong interest in E.T.V. and have attempted to ascertain its possibilities. In 1964, there was an attempt by some members of the Missouri legislature to raise the necessary funds to investigate the feasibility of a state-wide E.T.V. system. Although this initial measure was defeated, a new attempt will probably be made.

Several of the metropolitan areas in Missouri are making widespread use of E.T.V. In the St. Louis area, Station K.E.T.C. has presented programs for school use for many years. Several school districts in St. Louis County utilize closed-circuit television, while other school districts have made provisions in their building plans to allow for a possible future development in the E.T.V. field. The "North Circle Project" is also located in St. Louis County. The purpose of this project is to find the most economical means of linking all of the St. Louis County school districts through the medium of television. In our other large metropolitan area, the Kansas City Board of Education maintains a well equipped television studio which produces a variety of programs that can be used by the city school system.

The increased activity in E.T.V. and the probability of greater expansion presents innumerable questions which must be answered by our educators. A few of the most important questions are probably as follows: What subject matter lends itself most readily to television teaching? Can all areas of a particular subject be introduced on television, or are some segments more effectively introduced in the classroom? Is the television lesson superior to, equal to, or less valuable educationally than a lesson taught in the classroom? Will the use of television foster an impersonal relationship between students and television teachers which will be detrimental in any way to either group? Can E.T.V. have a primary role in teaching a specific subject, or should it serve as an enriching element?

There should be enough E.T.V. stations, both enclosed and open-circuit, presently operating in our country to furnish many opportunities for research projects. There is an urgent need for careful evaluation of of E.T.V. effectiveness in all areas of each subject. This should be done before the financial involvement in equipment becomes so great that finances alone could determine what is to be taught on television and its manner of presentation.

One goal for research regarding E.T.V. should be to ascertain where television is effective and where it is not, and in most cases its effectiveness or lack of it should be based on comparison studies with regular classrooms.

Purpose of Research

This study was of necessity somewhat limited. It is a preliminary "searching out" which might possibly show the need for more extensive research in this particular area.

This study was an attempt to determine whether the presence of the music teacher in the classroom has any material effect upon the learning which takes place in a particular area of music, as opposed to the same material being presented via closed-circuit television. The testing was conducted primarily in the area of sight-singing and it stressed visual pitch perceptions as well as an understanding of note values.

Method of Selecting Students

The records of approximately 160 fourth grade students were placed on file cards. These records contained the following data:

1. Name of the student
2. Home room teacher
3. I.Q. score
4. Stanford Achievement Test results[1]
5. Pitch comprehension, voice range, voice quality
6. Extra-school musical activities

A space was left on the card for pertinent comments such as the reference to a particular discipline problem or the relative newness of a student in the school system.

Sample card

Student—Smith, Jerry[2]

I.Q. 143

Stanford Achievement 6.0

Voice	*Pitch*	*Range*	*Quality*
	Good-minus	Good	Poor

Extra-school music—Flute 2 months

Comments—None

Most of the data on the file cards were taken from the school records. The voice grades were determined by using the following method of testing.

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[1] The Stanford Achievement tests were given to the students in April, 1964.

[2] All names fictitious

Pitch Grades

A series of tonal patterns was played on the piano and each student was asked to sing them. The ability to sing the first four patterns correctly was considered to be an average achievement. These patterns were based on the tones of a major triad. Upon successful completion of these patterns, the student progressed to six patterns of a more demanding nature. These patterns utilized a variety of intervals. If a student completed the six difficult patterns but incurred some minor inaccuracies, he was awarded a grade of good-plus. When a student was very accurate in imitating these pitches, he was awarded a higher grade. The grading was as follows:

Good: Completed first four patterns successfully
Good Plus: Completed all patterns with minor inaccuracies (i.e. some pitches a little flat or sharp)
Very Good: Completed all patterns very accurately

On the opposite side of the grading scale, a Good-Minus might involve some slight deviation in the singing of the first four patterns, but they would still be reasonably accurate. In some cases the Good-Minus might involve a range limitation. A grade of Poor denoted the student who was quite inaccurate in imitating the first four patterns. All of the students were asked to sing, in addition to the patterns, a well known song as a double check on their ability to make the proper pitch relationships. Any difficulties which the student encountered in singing this song were notated on the file card in the "comment" section.

Voice Range

The same grading terminology was used as an indication of the voice range of each student. They were asked to sing a series of major scales. The bases for the grades were as follows:

Good: Successful completion of a one octave C or C sharp scale
Good-Plus: One octave D or E flat major scale
Very Good: One octave E or F major scale

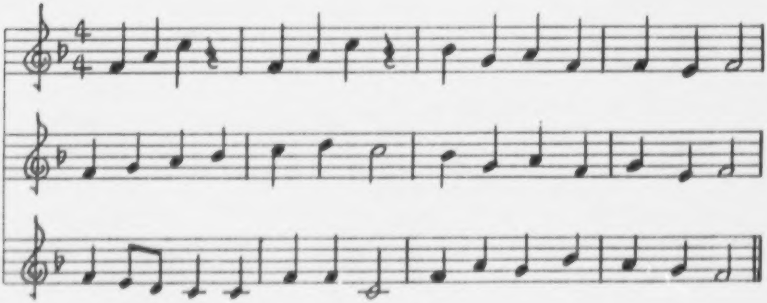
There was an element of subjectiveness in this grading. For example, if a student sang a D major scale and the D^1 was obviously forced or flat, the student was not given a Good-Plus rating, but was given a grade of Good. A Good-Minus grade was assigned to those students who had difficulty in singing the upper two of three notes of the C major scale. The grade Poor denoted a range of approximately three to five tones and included a few students who sang the scale an octave lower than the desired range. The quality of a student's voice was noted on the file card, but it had no influence on the grading.

Group Pairing

Originally, all of the data on the file cards were to be used in organizing a full classroom to serve as a control group in the research project. Due to the great diversity of data, it was impossible to achieve the desired goal without completely altering and disrupting five classrooms. An alternate plan which utilized the sampling method was adopted. Fourteen students from Room 1 were paired with fourteen students from Room 2. This pairing was made on the basis of Stanford Achievement tests plus the other file card data, including the I.Q. scores. Another group, of seventeen students, from Room 3 were paired with seventeen students from Room 4, but these students were paired on the basis of I.Q. scores plus the other file card data, excluding the Stanford Achievement test results. This particular arrangement enabled the pairings to be very exact. Rooms 1 and 3 were to receive their music lessons in the classroom from the music specialist. Rooms 2 and 4 were to receive the same lesson from the same music specialist via closed-circuit T.V.

Design

The pretest and post-test method was used as a measuring device in the research project. An original song was written by the music teacher. See Fig. 1.



This song incorporated the tonal and rhythmic patterns which would be taught in the ensuing lessons. Each student in the sampling groups was asked to clap the rhythm of the song, giving each note its proper value. They were asked to sing the melody, using the proper syllable names. A tape recorder was used during the tests, which established a permanent record of each student's proficiency in rhythm and melody. The tape recordings would permit repeated comparisons of any student's pretest and post-test result. Using the tape proved advantageous in one other area. Since it was necessary to test the students throughout a one-week period, the use of tapes enabled the music teacher to grade all of the tests on the same day. It was hoped that this would allow the teacher to be consistent in the grade allotments.

Grading Procedure

The rhythmic clapping was graded as Very Good, Good, Fair, and Poor. This terminology was also used in the melodic grading. A grading chart was devised in the following manner. See Fig. 2.

(Fig. 2)

GRADING CHART

						Pretest										Post-test									
						Rhythm				Melody						Rhythm				Melody				
Tea.	Student Name	I.Q.	Voice	Comments	Tape	V.G.	G	F	P	V.G.	G	F	P	Comments	Tape	V.G.	G	F	P	V.G.	G	F	P	Comments
F	[illegible]	104	S - V.G.G.	None	I 719				X				X	None	III 320	X						X		None
S	[illegible]	104	S - V.G.G.	None	II 651				X				X	None	IV 543		X					X		None

RESULTS DERIVED FROM THE POST-TEST

The first initial to the left side of the chart (Fig. 2) designates the home room teacher's name. This is followed by the student's name and accompanied by some of the data taken from the file card. The Roman numeral below the word "tape" designates the particular tape on which the student's voice could be found. The arabic number immediately to the right indicates the correct placement on a particular tape. In the pretest section, check marks were placed in the appropriate column for a rhythmic grade and a melodic grade. A space was left for any comments pertinent to the testing. The numbers in the first column of the post-test section designate the placement of the student's voice on the latest tape recording. The remaining categories are replicas of the pretest section.

This type of chart was devised because it permitted an easy comparison of an individual student's pretest and post-test results. It also enabled the music teacher to check the test results of any two students who were paired on the basis of the matching file card data.

Teaching Schedule

A series of sixteen lessons was presented to the students. The students received two 25-minute lessons per week. It was impossible to schedule the television and regular classroom lessons on the same day, but an effort was made to schedule the lessons in similar time periods. This was done to minimize a possible difference in fatigue on the part of the groups involved, due to earlier or later hours of the school day. The class schedules were as follows:

(Fig. 3)

SCHEDULE

Monday	Tuesday	Wednesday	Thursday	Friday
	1st Reg. Classroom 10:30-10:55			
All T.V. Classes 11:05-11:30	2nd Reg. Classroom 11:00-11:25			
			1st Reg. Classroom 2:30-2:55 2nd Reg. Classroom 3:00-3:25	All T.V. Classes 3:00-3:25

(Lesson 1)

(Lesson 2)

Lesson Plans

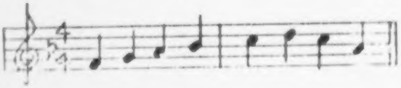
Since the fourth grade students could not be regarded solely as objects for research, it was necessary to make the lesson plans somewhat comprehensive in nature. The teaching of sight-singing actually comprised just a small portion of each lesson, which included many other areas of music. (See Figure 4.)

(Fig. 4)

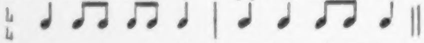
Outline of a Lesson

1. Combined tonal and rhythm patterns (key F)
2. Review song: "Glendy Burke" ditto sheet song No. 18
3. Test: *Dictate rhythm patterns*
4. Review song: round, "Hey! Ho, Nobody Home" 3 parts
5. Recording featuring a woodwind instrument: "Bassoon"

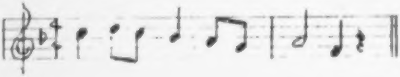
The sight-singing portion of the lesson was generally 5 to 8 minutes in length. Sight-singing was taught by utilizing tone and rhythm patterns, and then relating these patterns to the larger musical structures. The tone patterns used in the beginning lessons were written in several keys. These patterns emphasized singing the syllables on the correct pitch.



The separate rhythm patterns were executed by clapping and chanting the correct rhythms.



The later lessons utilized combined patterns. In these combined patterns the stress was on equal attention to melody and rhythm simultaneously.



The tonal and rhythm patterns used in each lesson were selected to lead progressively into a sight-reading song which was presented every five lessons. The students were asked to clap and chant the rhythms and sing these songs using syllable names, as they had previously done with the patterns. The sight-reading songs were always reviewed in the lesson which followed.

The children in the regular classroom situation were allowed to ask some questions during a lesson, whereas the television classes had no way of immediately communicating with the music teacher. Whenever possible, questions which proved of value in the regular classroom were incorporated into the television lesson. In planning the series of sixteen lessons, the music teacher drew upon previous teaching experiences in attempting to foresee all of the probable difficulties which might arise.

Post-Test

The pitch patterns used in the post-test was a rearrangement of the one used in the pretest. As in the pretest, the results were tape recorded and the grades were later transferred to the chart. The student's pretest and post-test marks were compared, and the results were recorded under the following headings:

Much improved
Some improvement
No noticeable improvement (same)
Retrogressed

A student was listed as "much improved" if his progress was greater than a single step to the next category. See the following example.

(Fig. 5)

EXAMPLE OF "MUCH IMPROVED"

Pretest

V.G.	G	F	P
			X

Post-Test

V.G.	G	F	P
	X		

The student in Fig. 5 was able to skip from a grade of "poor" to a grade of "good."

Progressing to the adjacent grade level would be considered as "some improvement." See the following example:

(Fig. 6)

EXAMPLE OF "SOME IMPROVEMENT"

Pretest

V.G.	G	F	P
			X

Post-Test

V.G.	G	F	P
		X	

"No noticeable improvement" means that the grade level did not vary. The term "retrogression" includes any noticeable decline in the grade whether it was by step or skip.

Using these four categories resulted in the following figures: (See Figures 7, 8 and 9)

(Fig. 7)

RESULTS DERIVED FROM THE POST-TEST IN THE AREA OF MELODY

	Number of Students showing			
	Much Improvement	Some Improvement	No Noticeable Improvement	Retrogression
Television Group I (consisting of the 17 students who were selected on the basis of I.Q. score and other data)	1	3	13	–

Television Group 2 (consisting of the 14 students who were selected on the basis of Stanford Achievement scores and other data)	–	4	9	1
Combined totals[1] for the two television groups	**1**	**7**	**22**	**1**
Regular Classroom, Group 1 (consisting of the 17 students who were selected on the basis of I.Q. scores and other data)	4	7	6	–
Regular Classroom, Group 2 (consisting of the 14 students who were selected on the basis of Stanford Achievement scores and other data)	–	5	7	2
Combined totals for the two Regular Classroom Groups	**4**	**12**	**13**	**2**

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[1] The combined totals for the two television groups and the combined totals for the two regular classroom groups have been set in Bold type for easy comparison.

(Fig. 8)

RESULTS DERIVED FROM THE POST-TEST IN THE AREA OF RHYTHM

	Number of Students showing			
	Much Improvement	Some Improvement	No Noticeable Improvement	Retrogression
Television Group 1 (consisting of the 17 students selected on the basis of I.Q. score and other data)	1	6	8	2
Television Group 2 (consisting of the 14 students selected on the basis of Stanford Achievement scores and other data)	4	2	2	6
Combined totals[1] for the two television groups	**5**	**8**	**10**	**8**
Regular Classroom, Group 1 (consisting of the 17 students selected on the basis of I.Q. scores and other data)	4	5	5	3
Regular Classroom, Group 2 (consisting of the 14 students who were selected on the basis of Stanford Achievement scores and other data)	2	4	5	3
Combined totals for the two Regular Classroom Groups	**6**	**9**	**10**	**6**

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[1] The combined totals for the two television groups and the combined totals for the two regular classroom groups have been set in Bold type for easy comparison.

(Fig. 9)

IN THE COMBINED AREAS OF RHYTHM AND MELODY

	Number of Students showing			
	Much Improvement	Some Improvement	No Noticeable Improvement	Retrogression
Combined totals of Television Groups 1 and 2 in both rhythm and melody	6	15	32	9
Combined totals of the Regular Classroom Groups 1 and 2 in both rhythm and melody	10	21	23	8

In the area of rhythm, the classroom students and the television students had somewhat similar results, whereas in the area of melody the regular classroom students had considerable superiority. In the combined totals for melody and rhythm, 31 students from the regular classrooms showed noticeable improvement in the post-test, whereas only 21 television students showed noticeable improvement.

Incidental Information

Televised teaching was not new to the students or teachers who were involved in the research project. The students had received television lessons in several other subjects for approximately six months prior to the televised music lessons. The music teacher who conducted all of the lessons had taught televised music since 1961.

Absentees

During the research period, a record was kept of the number of absentees in the sampling groups. Most of the students were present for all of the lessons. The number of students who were absent for one lesson was approximately the same in all groups. Four students missed a considerable number of lessons (1 television student missed 4 days; 1 classroom student missed 4 days; and 2 classroom students each missed 3 days). The records seemed to indicate that absenteeism was not a significant factor in the research.

Mechanical Difficulty

One room which received its musical instruction through closed-circuit television experienced a mechanical difficulty. During one lesson the audio portion of the program was somewhat garbled. With this exception, all other lessons were mechanically satisfactory.

Other Testing

Several other incidental tests were administered during the sixteen lessons. In the research project, a total of 31 students from the television classes had been matched on the basis of the file card data with 31 students from the regular classrooms. By directly comparing the achievement shown by each television student with the achievement of his matching regular classroom student, the following results were compiled.

Test 1

In 4 of the 16 lessons, approximately 10 minutes of each lesson were devoted to listening to the instruments of the woodwind family. This series of lessons was then followed by a short quiz. The students were asked to listen to recordings of various instruments and to identify them.

Test Results:

4 television students had the same score as their matching regular classroom students

12 television students did better than their matching regular classroom students

14 classroom students did better than their matching television students

1 student's absenteeism voided a comparison.[1]

73 mistakes were made by the television groups

62 mistakes were made by the regular classroom groups

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[1] A regular classroom student was absent. His matching partner in the television class who was present made a total of 4 mistakes. These 4 mistakes are included in the total mistake figure of 73 which is shown above for the television groups.

Test 2

Two lessons were devoted to a review of the letter names of the notes on the staff. Some attention had been given to this area of music fundamentals prior to this research project.

Test Results:

6 television students had the same score as their matching regular classroom students

9 television students did better than their matching regular classroom students

14 classroom students did better than their matching television students

2 students were absent (one television student and 1 regular classroom student)

321 mistakes were made by the television groups

223 mistakes were made by the regular classroom groups

Test 3

Several lessons emphasized rhythmic dictation. In the test that followed these lessons the students were asked to listen to various rhythm patterns and then to write the correct notes on the test papers.

Test Results:

5 television students had the same score as their matching regular classroom students

5 television students did better than their matching regular classroom students

15 classroom students did better than their matching television students

7 students were absent, 6 from the television class and 1 from the regular classroom.[1]

89 mistakes were made by the television groups

56 mistakes were made by the regular classroom groups.

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[1] Since there was a considerable amount of absenteeism during this test, the following facts have some significance in the student comparisons, as well as in the figures for the total mistakes: One television student and his corresponding regular classroom student were both absent. The remaining 5 absentees were from the television groups; however, their matching regular classroom partners who took the test had the following minimal error: 1 student had 1 incorrect answer; one student had no incorrect answers; 1 student had two incorrect answers; and another student had incorrect answer. These 4 mistakes are included in the total mistake figure of 56 made by the regular classroom students.

Conclusion

This is a preliminary research and the results are not conclusive. It is difficult to ascertain whether the problems involved in teaching these areas over television are insurmountable because of inherent limitations, or whether they can be overcome through improved teaching methods. It would be of value to compare the results of similar research papers where the reasearcher has utilized a different method of teaching sight-singing. As stated in the introduction, the need for research in all areas of E.T.V. is imperative.

DEVELOPING PATTERNS OF THE UNDERGRADUATE MUSIC EDUCATION CURRICULUM IN THE UNITED STATES

Abstract of unpublished doctoral theses
Bringham Young University 1965

C. Loran Lee
Formerly University of Missouri

The purpose of this study was to evaluate the undergraduate music education curriculum of teacher-training institutions by: (1) ascertaining the influence of the accrediting movement upon curriculum change and development; (2) determining present curriculum practices as compared with desired objectives; (3) studying selected school catalogs for the period 1955-65; (4) reviewing selected curriculum innovations designed to improve existing practices.

The basic research method employed was the normative survey. A questionnaire was mailed to twenty-four teacher-training institutions selected by MENC and NASM as having made significant changes in their undergraduate music education curricula during the ten year period 1955-65. Ninety-six percent of the participants returned the questionnaire.

Findings

The questionnaire ratings revealed the need for closer relationship between course content and the needs of prospective teachers. The need for correlation of related areas of learning was rated "very important" by a majority of participants throughout the questionnaire. For example, ninety-five percent of the participants accorded the highest importance ratings to criteria relating to the correlation of music methods classes and student teaching experiences. More than twice as many participants rated the questionnaire criteria in the highest category of the "importance" rating scale than in the same classification of the "provided" scale.

The catalog study revealed that relatively few changes have taken place in the music curriculum during the ten year period 1955-65 with the exception of the area of music education methods classes. Over half of the institutions studied added classes in elementary, instrumental, and music education. Relatively few classes were deleted.

There has been a marked trend toward expansion of the music education methods classes during the ten year period studied. Other changes indicate that during this period the pendulum of the music curriculum swung too far in one direction and fragmentation resulted. During recent years there appears to be some effort toward a reversal of this situation through correlation of related areas of learning.

Recommendations

As a result of this investigation it is recommended that there should be: (1) greater stress placed upon correlation of related areas of learning; (2) correlation of the activities of performing groups and related

areas such as music history and literature classes; (3) student performing experiences in both large and small choral and instrumental ensembles; (4) integration of instrumental and choral literature and certain aspects of theory such as sight-singing, ear training, and rhythmic, melodic, and harmonic dictation; (5) correlation of instrumental and choral conducting and performance practice with music history/literature; (6) ear-training and dictation experiences which employ live and recorded instrumental and choral ensembles; (7) creative activity in composition which permeates the work in music theory and is related to teacher preparation; (8) greater efforts made to insure that the music education faculty has had experience teaching in the public schools; (9) closer correlation between music education methods classes and observation and student teaching experiences; (10) observation and student teaching experiences at all school levels; (11) greater efforts to provide students with more counsel and direction during the student teaching experience; (12) more emphasis placed upon the purpose and procedures of the general music class in the public schools and consideration of the junior high school as a distinct problem in school music education; (13) experience in conducting school literature as well as standard literature; (14) more instruction in selecting types of method books and other literature for varying stages of instrumental and choral development; (15) piano instruction which is more closely related to the needs of public school music teachers; (16) class and ensemble experience in which the student develops skills in the use of minor performance instruments.

The accomplishment of the preceding recommendations implies that the music education faculty undertake a self-evaluative study of the teacher-training program in order to identify desired outcomes and develop a unified philosophy. Inasmuch as eighty percent of the music majors are enrolled in the teacher-training program, the music curriculum should be organized with the professional destination of the majority in mind.